





Not one size fits all... we care... 'off the peg - made to fit' or 'made to measure', we take the time to make sure your suit fits **you**...

at O'Three we work with every diver to ensure their dry suit is the perfect fit for them and their diving, a tailored solution.

We do not ship anonymous product in a box, we supply an important piece of diving equipment.

...Come in from the Cold

FIRST IN



RESPECT FOR THE ARTISTS

UNDERWATER PHOTOGRAPHY IS SO MUCH HARDER than topside photography. Being suspended in a liquid medium rather than planted on the ground brings challenges that topsiders can only imagine. Even when kneeling on the seabed, you can still be subject to the effects of currents.

There is the loss of natural colour and light, of course, and the difficulty of adjusting to changing depths as well as distances. Leaks are a constant threat; operating controls with gloves on isn't always easy.

Water is full of swirling, reflective particles. It can be difficult to spot tiny targets, to focus, to remember to keep an eye on your buddy and gauges.

We're always told that for great pictures you must get close to your model and then closer still, but zeroing in at the required angle without touching anything or spooking your prey can seem like mission impossible.

And only once the basic challenges have been overcome can ambitious photographers consider how to produce art rather than reference shots.

The best of them deserve great credit – which is what the new Underwater Photographer of the Year (UPY) competition provides, and prizes too.

The total of 2500 entries was staggering for an inaugural event, and we've gone to town on the results in this issue because



we think they're impressive – and because the competitors' and judges' comments shed useful light on the whole tricky business.

DIVER has been behind this event from the start, because Alex Mustard conceived it as a rebirth of the competition started by the magazine's founder Bernard Eaton 50 years ago during the Brighton Festival.

The contest has "come home" as part of **DIVER** Group's London International Dive Show, where the trophies are awarded and the images displayed and discussed. We're proud to have it there.

If you agree that achieving great underwater photographs is tougher than a £5 pub steak, just imagine the challenges faced by participants in those British photo contests 50 years ago.

This month, photographers who were there in the mid-1960s tell us what it was like to dive with a camera in a dodgy housing, a few frames of black-and-white film and no clear way to reach their promised land – the Red Sea.

But 2015 looks set to be a good time for home-waters underwater photography, with more UPY and BSoUP set to launch a new type of onthe-day event, the British & Irish Underwater Photography Championship.

Regional splash-in events may yield good pictures but they rarely attract big entries. Often it's the same few local photographers turning up each year.

The new competition aims to make a bigger splash. It's a 24-hour shoot-out for pictures taken in any British or Irish waters with any sort of camera on a day in September, the images submitted online. You'll find more in the *News* pages.

You and your buddies may like to get involved. Underwater photography isn't easy, but if you're able to overcome the obstacles, you may as well reap the recognition.









Two exceptional boats. Trips available on the Nautilus Explorer and Nautilus Belle Amie



Never more than 8-10 divers per site using our high speed 7.5 meter RHiBs.



Luxurious, stabilized, modern boats built to SOLAS standards.

Guadalupe £1695

Socorro Adventures from £1795

Trip Availability

email: info@nautilusexplorer.com tel: +1 604-241-1918

Nautilus | Explorer Belle Amie www.GuadalupeGreatWhiteSharks.com www.SocorroGiantMantas.com

ITENITS







31 **Lust for Rust** Hurghada to the Gulf of Suez - 15 wrecks in a week

38 **UPY Competition Winners** 10-page special reflects best in u/w photography

52 Daymaniyat Days

Dan Burton seeks new outlook in central Oman



Biting the Hand that Feeds Shark-feeding in the Bahamas opens our Shark Files

61 **Angels Vanish** Lisa Collins searches for angel sharks in the Canaries

PJ Probe

Researchers get hands-on with Port Jackson sharks

Project Oceanic Whitetip Unforgettable encounters on dedicated shark trip

Architect of Love

Japanese pufferfish finds a new way to attract mates

50 Years Behind the Lens Photo contests half a century ago were a challenge!

Critters Without Crowds 80 Indonesian rival for Lembeh? Nigel Marsh thinks so











incorporating UNDERWATER WORLD

Published monthly by Eaton Publications, 8 Mount Mews, High Street, Hampton, Middlesex, TW12 2SH

Tel: 020 8941 8152, Fax: 020 8941 8813 Email: enquiries@divermag.co.uk

Publisher & Editor-in-Chief Nigel Eaton nigel@divermag.co.uk

Steve Weinman steve@divermag.co.uk

Publishing Consultant

Tony Weston tony@divermag.co.uk

Technical Editor

Nigel Wade divingnige@btinternet.com

News Editor

Paul Fenner paul@divermag.co.uk

Production Manager

George Lanham george@divermag.co.uk

Webmaster

Mike Busuttili webmaster@divernet.com

Advertisement Manager Jenny Webb jenny@divermag.co.uk

Classified Advertisement Sales Sara Duncan sara@divermag.co.uk

Senior Advertisement Executive Alex Khachadourian alex@divermag.co.uk

Advertising Production David Eaton david@divermag.co.uk

Subscriptions Manager Elizabeth Puttock elizabeth@divermag.co.uk

Marketing, Sales & **DIVER** Bookshop Dorothy Eaton dorothy@divermag.co.uk Elizabeth Puttock uwp-mailshop@divermag.co.uk

Financial Controller

Kojo Gyamera kojo@divermag.co.uk

Reception enquiries@divermag.co.uk

EDITORIAL CONSULTANTS

Archaeology **Martin Dean** Biology **Dr David Bellamy** Industry Dr John Bevan Law Prof Mike Williams Medicine Dr Ian Sibley-Calder Photography Saeed Rashid, Brian Pitkin Ships Richard Larn Wrecks Rex Cowan

THE MAGAZINE THAT'S STRAIGHT DOWN THE LINE...

HOW TO GET YOUR DIVER:

SUBSCRIPTION: Twelve issues, including p&p, cost £52.80 (UK); £64.80 (Eire/Europe/Worldwide surface); airmail rates available on request. Pay by Visa, MasterCard, Maestro, American Express, sterling cheque or UK Postal Order. Contact the Subscriptions Dept, DIVER at the above address. NEWSAGENT: If you prefer to buy DIVER over the counter, place an order with your newsagent now? All newsagents can obtain the magazine, but in case of difficulty please notify the Circulation Manager at the above address.

DIVER (ISSN-0141-3465) is published monthly by Eaton Publications, Periodicals Postage Paid at Jamaica NY 11431. USPS no. 22517. US agent: Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA.

US POSTMASTER: Send address changes to DIVER Magazine, C/O Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue,

2nd Floor, Jamaica, NY 11434, USA.



CONTENTS

- First In Editor's view
- 10 **Off-Gassing** Good service, and red drysuits
- 12 News Underwater forest find – and Lotte Hass dies
- 25 **Beachcomber** When Tom Cruise rolls up at the dive centre
- 51 **Behind the Scenes** Any volunteers to pen words for a diver's send-off?
- **57 Trewavas** What to do with an upside-down diver
- 86 **Booking Now** All the holiday news
- **Diver Tests** 88 Atomic T3 reg, Retra snoot, Mares EOS RZ lights
- **Just Surfaced** 94 New but untested diving products
- 98 **Dive Holiday Directory**
- **100 Liveaboard Directory**
- 102 Classified Ads
- **104** Dive Centre Directory
- 104 Advertisers' Index
- **105** Subscribe Here

- and get a free Apeks diving watch!

106 Deep Breath



Cover shot: Hammerhead shark, the Bahamas, by Martin Strmiska



The reproduction in whole or in part of any of the contents of **DIVER** is expressly forbidden without the written permission of the Publishers. Copyright © 2015 by Eaton Publications. **DIVER** reserves the right to reproduce on-line any articles that it has published in print. The views expressed in FIRST IN are not necessarily those of anyone but the Editor, and other editorial should be ascribed only to the authors concerned. The publishers accept no responsibility or liability for any errors, omissions or alterations, or for any consequences ensuing upon the use of, or reliance upon, any information contained

herein. Due caution should be exercised by anyone attempting dives on any site herein described or indicated. The company does not accept liability for submitted photographs. The printing of an advertisement in **DIVER** does not necessarily mean that the Proprietors endorse the company, item or service advertised. **DIVER** is distributed by Seymour Distribution Ltd, 2 East Poultry Avenue, London EC1A 9PT (tel: 020 7429 4000) and printed by Headley Brothers Ltd, The Invicta Press, Queens Road, Ashford, Kent TN24















Remote, yet accessible

At Wakatobi, getting away from it all is easy. Direct charter flights whisk you from Bali to our remote island retreat, where your beachfront Bungalow or Villa awaits, and some of the finest and best-protected reefs in the world are at your door.

Far removed from the day-to-day, you are free to create your own schedule, taking full advantage of the many daily opportunities to immerse in one of the world's richest underwater environments, or simply relax in an idyllic oceanfront environment at a resort known for providing the highest level of personal service.

Colorful reefs, which plunge dramatically from shallow depths, give snorkelers plenty to see and also allow for long multi-level dives of an hour or more. Within our private marine sanctuary, marine life thrives – more than 600 species of coral, 3,000 varieties of fish and thousands more invertebrates. Our expansive House Reef and the nearby 40-plus dive sites provide endless possibilities for discovery. Those seeking even more adventure can combine a stay at the resort with a cruise aboard the luxury dive yacht Pelagian, which ranges farther afield.

Getting to and from the resort has never been easier: our charter flight schedule has recently expanded to provide even greater flexibility in planning your travel itineraries. Our concierge staff manages all aspects of airport transfers in Bali, and can help create memorable layovers before or after your visit to Wakatobi.

Get away from it all. Discover the possibilities at www.wakatobi.com or contact us at office@wakatobi.com.

"Exceptional service in every aspect of my time spent at Wakatobi. After three visits of multiple weeks I only find myself wanting more. Go Go Go to Wakatobi as it truly is an amazing experience!"

Troy Cheek, October 2014



www.wakatobi.com

HELPFUL PETREL-HEADS

In line with your laudable penchant for giving credit where it is due, I felt I had to send you this report.

I recently acquired, after much deliberation, a new Shearwater Petrel. For £800-worth of computer I needed to be reasonably sure I was going to be happy with it, and am delighted to report that it is a superb piece of kit, fully living up to the Shearwater track record of functionality and reliability.

The Petrel does, however, require the use of a Bluetooth connection to your PC or laptop to download dive profiles or upload software updates. This removes any potential water ingress problems through USB ports, but brings with it the good old technology that is sent to try us just when we thought we had it covered.

My Bluetooth dongle refused to play ball, so I consulted the help pages of the Shearwater site and tried every trick in it, but it still refused to play.

"Update your driver," I was told by someone who knows about these things.

Driver updated, I tried again – still not playing. Getting stressed now!

I rang the very helpful people at Narked@90, Shearwater's UK agent. They immediately sent me a free replacement dongle by express post, saying that they felt it would solve the problem, but that if it didn't I should contact Shearwater's technical division. It didn't, so I did.

I emailed Shearwater, fully expecting to hear nothing, but next morning I woke to find an email from Mark Lee, software developer for Shearwater, apologising for the problems I was

DEPTH TIME STOP TIME 50.2 40 42 1 GAS PO2 1.26

OC 21/35 113 109

encountering and offering some possible fixes. These didn't work, so I sent him back more information and waited.

Next morning there was another reply and things to try, but still no luck. Finally, I asked if could phone him to discuss the problem. In minutes he replied to say he would phone me the following evening after I finished work, Canada being 10 hours behind us.

The guy was on the phone for 20 minutes with me, patiently talking me through each different step until we finally sorted out the issue.

I have never experienced such fantastic aftersales service from a supplier in my own country, let alone from one across the Atlantic.

So hats off to Shearwater's technical division, especially Mark Lee – you're a credit to your company. Also a big thumbs-up to Narked@90, which dealt with its side of my experience with equal caring.

ROB REDMAN, TIVERTON, DEVON

Real divers wear red

In Back To Black, the Trewavas column in the December issue of DIVER, Louise wanted dive gear in colours other than the all-too-common black, but fails to mention that the Finnish dive-gear maker Ursuit has a number of drysuits available in red, perhaps most famous the Heavy Light Rescue model, used by rescue services world-wide.

As the proud owner of a Heavy Light FZ, in the conservative black, I highly recommend this trilaminate suit to anyone looking for a new drysuit, as it's one of the best I've ever dived.

The fact that Ursuit has a standard size that fits me (195cm and 100kg,

UK 13 in shoes) took away the hassle of having to order a made-to-measure suit just to get one that fits.

Thanks for a great dive-magazine!

JOHAN NILSSON, LUND, SWEDEN

I have just read Louise Trewavas's article regarding the use of black as a technical colour. Since the early 1990s I have always dived in a bright orange drysuit.

The first I had was commissioned by Polar Bear. This suit lasted a good 10 years before it needed any repairs.

When I approached PB about the cost of a new zip in an orange suit, it denied ever making one.



However, on receiving my suit for the repairs it apologised, as there was one on its deck.

Once this suit finally gave up the ghost after 18 years of heavy diving I went over to Otter for another allorange Britannic.

As you can see from the photo, this suit has faded a bit. Once wet, however, the brightness hits you in the face! This great suit is 15 years old but has seen better days.

Every time I step out of a hard boat's

wheelhouse dressed in the suit other divers crack some sort of Tango joke. However, the skippers on board can see me a mile off and wish all the other tekkies would go down the same route.

I have been trying hard to set a new trend, but others dare not follow! They might be the ones who end up spending time alone in mid-Channel for hours because they couldn't be spotted.

NEIL MORGANS, BISHOPSTOKE, HAMPSHIRE

WRITE **DIRECTION**

Send us next month's lead letter and you could win this Trailblazer heavy-duty, wrist-mounted, liquid-filled compass with "super high strength" magnet for fast, positive & accurate response, side window panel and high-vis luminous dial. Supplied by Beaver Sports, the Trailblazer retails for £57.





This Trailblazer compass and all the other products from **Beaver Sports** are obtainable at all good dive shops. For a free colour brochure, prices and stockist list, call 01484 512354 or visit **www.beaversports.co.uk**

Deepest are 'the lowest'

I have just read with disappointment **DIVER**'s promotion of another deep dive record (*Declassified: The World's Deepest Diver*, December).

Scuba-diving must actively seek to dissuade and conceal the activities of these self- promoting depth junkies. It proves nothing – commercial diving greatly exceeds the depths and all necessary science has been done.

Diving deep on scuba is utterly pointless and serves only to promote this individual's dive centre to the lowest type of moron who finds depth impressive – we do not need such foolish people learning to dive.

People will die emulating or attempting to beat this and their blood will be on the hands of this man and the people who where sufficiently fooled by his actions to promote it.

I would hope that **DIVER** seeks to redress the balance as soon as possible by printing a serious editorial apology or critical appraisal of recordbreaking for pointless self-promotion.

BEN FIELD

Comment: We reported Ahmed Gabr's 332m dive in our news pages and followed up with a feature analysing the dive. There will always be divers who take up such challenges, and this seemed to be a particularly sober and well-planned record bid.

DIVER didn't "promote" the dive, it reported on it as a matter of legitimate interest, and as such we can see no reason to apologise for anything. See also January's The Big Question, in which 62% of responding readers approved of record bids.

DIVER 10 WWW.DIVERNET.COM



View to a kill

Everybody in the civilised world should be aware of the words "environmental awareness" and "ocean conservation" by now, especially scuba-divers, who are usually to the fore in fighting against the exploitation of marine resources.

They know first-hand of the beauty of the aquatic realm and its inhabitants, making them true ambassadors for the good cause of conservation.

Fishermen as well as governments around the world have understood, that, for example, a live shark is worth more than the sum of its fins on an Asian market. Dive operators form alliances with scientists to help gather data on the fragile marine eco-system and create refuges for hunted species.

The Republic of the Maldives is a good example of an underwater paradise doing its homework. It started with the protection of single dive-sites to avoid overfishing.

Now, entire regions have been put under the protection of marine-park status, creating a working compromise between dive tourism and conservation.

It's more than astounding, that some dive operators seem totally unaware of the difficult task of keeping a healthy ocean (and with it, their daily income) in balance for years to come.

On my last dive safari on the Ari Queen, while travelling back to Male, a sailfish was hooked by the crew and brought on board.

The crew were proud, of course, and happy about the unexpected booty, while I was somewhat dumbstruck by the happy faces all around me.

It was never considered an option to release the sailfish back to freedom, because it will generate extra income at the local fish-market.

I am fully aware that beautiful creatures such as sailfish are being caught each day by fishermen to make a living, but to witness the death of one of the ocean's most elegant swimmers in front of a cheering crowd on a dive-boat brings tears to my eyes. This ignorance makes me sad and very angry.

Luckily, I can get off this vessel in the morning. In the meantime, I will be mourning the loss of a friend from the ocean. I'm sorry!

TOBIAS MEINKEN, HAMBURG, GERMANY

Ismail Mohamed, operator of Ari Queen, comments: This was an isolated incident. Although it was at the specific request of a guest, it should not have happened.

Although this type of fishing is not against the law, we have briefed the captain, dive guides and the crew not to allow such practice going forward and I will closely monitor this.

Road to reef

As the nights get darker, it never ceases to amaze me the lighting that is available to cyclists. Most of them have a daily round-trip journey of more than an hour and they seem to ride push-bikes with headlights similar to Star Wars lasers or World War Two anti-aircraft searchlights.

Why can't the makers get together with the dive-light manufacturers and produce a highwattage light that will last for several dives? The technology must be

there, and in a lot of cases all they need is a good, well-sealed housing.

FRANK HOWARTH, KEIGHLEY, W YORKS

Comment: Interesting that cyclists in your neck of the woods light up the night sky, Frank - round our way, quite a lot of them don't seem to bother with liahts at all!

Young ideas

Do you think **DIVER** will ever have a page for young people, as some of it is very complicated? I like all the gadgets and things and photos, but it is mostly for older people,

I think maybe you should have a couple of pages at the back for us, to review stuff that fits (as everything seems too big!), good places to go on holiday to dive as a family etc, and encouraging more young people to dive (especially girls!). There is really nothing about at the moment for us to read.

ARWEN RICH (12), PENN, BUCKS

Comment: Now there's food for thought. What do other readers think?

Got something diving-related you'd care to share? Email steve@divermag.co.uk, including your name and postal address - and please confirm that you're writing exclusively to **DIVER**



WWW.DIVERNET.COM

Divers find prehistoric forest remains off England's east coast

PAIR OF DIVERS have found the remains of large trees off the coast of Norfolk that are thought to date to the Ice Age.

Partners Rob Spray, 48, and Dawn Watson, 45, were stunned by the find off Cley Next The Sea where, four years ago, they had made another key discovery – that of a chalk reef that turned out to run 20 miles from Cley to Trimingham.

The pair, who run Seasearch's marine-biological research programme in East Anglia, found the tree remains late last August, but only recently announced the discovery.

"We'd finished a shore dive on the popular Vera wreck, which sits in just 5m of water and 100m to 150m out, and we decided we'd fin out seaward over the sandy bottom to see what was about," Spray told **DIVER**. "We'd covered about 300m from the wreck and were in about 8m of water when Dawn became aware of what felt like a black wave to one side of her.

"Turning to look, she realised that she was finning along beneath a dark ridge that was about 1.5m proud of the seabed, and was amazed to recognise it as wood. Moving further along the piece, we realised we had a tree-trunk complete with branches, knot-holes and bark clear to the eye."

Ten more dives were possible before the end of the diving season, some carried out with Joanne Porter, Associate Professor in Marine Biology at Heriot-Watt University, and Seasearch volunteer Michael Southwood.

The dives revealed a collection of tree remains, probably oaks, arranged in a near-straight run of about 350m. "From early in 2014 we were aware



that there had been extensive sand movement in the area from winter gales, with depths of up to 2m of sand removed in places," said Spray.

"The run we found lies roughly parallel with the shore, as if following a depth contour along which a particularly large amount of sand was shifted."

As **DIVER** went to press, samples taken for radio carbon dating had yet to be processed at the University of East Anglia. However, after consulting experts, geology professionals drilled down through adjacent shore marshland to replicate 8m below sea

level. From the bores they established that materials buried at the depth of the divers' find were likely to date to the Ice Age.

"A forestry consultant, David Prince, has said that, from the branch formations we've photographed, the trees grew close to each other, indicating dense forest," said Spray. "In the Ice Age, sea level was 120m lower; you could have walked from the UK to Germany, and it is thought that forest covered much of Europe.

"The trees we've located are, therefore, very likely to have been part of a far-reaching forest area." Up to about 6200BC a plain known as the Doggerland extended across what is now the southern North Sea, linking the British landmass to the rest of Europe, before being flooded by rising sea levels.

"David also pointed out that, as the trees all lie pointing in the same direction, it's likely that they were felled together by some catastrophic event such as a tsunami or major storm, once the sea had risen to their level," said Spray.

As **DIVER** went to press in January, the sands had not returned and the survivors of a prehistoric forest remained available for further study. The plan for this season is to work further on the extent of discernible tree remains and to study their biodiversity, now that their exposure has opened them up to colonisation by all sorts of marine organisms.

It is also possible that animal fossils could be found, from creatures that lived in the forest.

The trees can, however, be expected to decay and disappear relatively quickly unless seabed movement covers them again before too long, perhaps during more extreme weather conditions that might arise during winter 2015/16.

"We'll dive when we can," said Spray. "The problem is that in winter you have rough weather and in spring bad visibility from algal blooms. It may well be June before we can get going."

Seabed movement from gales in winter 2013/14 revealed ancient tree remains in parts of the western UK, but the find by Spray and Watson is the first to have occurred in the east and to be linked possibly with the farreaching Doggerland forests.





Holiday diver died after being sick under water

A DIVER LOST HIS LIFE after making a rapid ascent during a training dive while on holiday in Spain last May, an inquest has heard.

Stephen Salisbury, 57, from Braintree in Essex, made the ascent from 20m and an initial Catalan report cited a cerebral embolism as the probable cause of death.

However, pathologist Dr Martin Goddard told Essex Coroner's Court in Chelmsford that Salisbury had suffered barotrauma, with evidence of air having been forced into his lung tissues. He had food debris in his airways as a result of having vomited under water, indicating why he had made the rapid ascent. He also had coronary heart disease.

Goddard said it was inconclusive as to whether the cause of death had involved brain embolism, lung barotrauma or the coronary disease.

An examination of Salisbury's equipment had revealed no fault, and no blame was attributed to Salisbury or his instructors in terms of diving procedures.

Area Coroner Eleanor McGann ruled that the fatal incident had been instigated by aspiration of stomach content, with the cause of aspiration and resulting effect remaining undetermined.

She recorded a verdict of accidental death, saying: "This was a tragic accident. It could not have been predicted or stopped."

CAMERA AND OWNER REUNITED

A GOPRO CAMERA has been returned to its owner after being found by a diver expecting the more usual find of golf balls in Lake Powell, Colorado.

Pictures downloaded from the memory card showed a crosscountry road journey, with a list of destinations. The diver, Allisa Oliger, searched YouTube under "Road Trip" and was able to track down a video featuring one of the individuals featured in the GoPro collection.

Having contacted the grateful man via Facebook, she learned that the camera had been in a kayak that had tipped over on the lake. It was posted back to its owner.

OPERATOR FINED FOR FAILING TO KEEP LOOK-OUT

A CAYMAN ISLANDS dive operator has been fined US \$750 for not keeping a look-out at all times on a dive trip – but has been cleared of any possible link between that violation of port authority regulations and the death of an American tourist that occurred on the same outing.

David Byles, 57, was lost on the dive trip in January last year when, after surfacing from a dive, he got into difficulties while swimming back to the dive-boat, and sank from view when about 100m from the yessel.

His wife realised that he had disappeared only when she reached the boat, and raised the alarm.

Byles' BC was recovered but his body was never found.

At the Caymans court hearing in mid-January, General Manager of Sunset Divers Keith Sahm agreed that, at one point, both of the boat's divemasters were in the sea tending to diving guests for between five and seven minutes "while the first diving team got on the boat and the second went down".

However, this "did not affect the safety and security of our divers and had nothing to do with the disappearance of the diver who surfaced with the second team", he said. A divemaster had been aboard the dive-boat together with a number of guests when Byles was reported as missing by his wife.

Crown counsel Scott Wainwright, while telling the court about Byles' disappearance, did not make any connection between the fatality and the temporary absence of a look-out, reported Caymans press.

Byles' widow, said Sahm, "has always said how professional and safety-conscious Sunset Divers was that day" and continued to dive with the company.

THE B G QUESTION

Hunting instincts

Last month we reported that recreational divers would need to buy permits if they wanted to take crustaceans or shellfish for the pot in Devon and the Severn estuary.

Interested to know what proportion of readers look out for something to eat while on a dive, we asked: "Do you ever take shellfish etc for the pot while diving?" On this count it seems that 38% of you are not averse to the odd free scallop, crab or lobster meal.

NO

"Largely because of the presence of the UK nuclear sub fleet in the same water!" Stephen Frew

"I used to take for the pot; now I prefer to take photos!" Martin Sanders

"Taking them while diving is better for the environment than buying them – there are no side-effects." Steve Copeland

"I used to take molluscs occasionally until they got their own back when I developed a severe allergic reaction to them." TR Amp

"Go diving to see them in their natural habitat, not to hunt!" Matthew Johnston

"I don't like to take anything, living or dead." Carmen Zahra

"I leave the fishing to fishermen." Paulo Saraiva

"I nearly took a couple of scallops for my little daughter while up in Scapa but came across a few nice and empty shells." Derek

"Take from the Bay, the answer be NAY! A sea full of life destroyed by man's knife. Please consider the cost, before all will be lost: A sea nothing but sand, the result of man's hand. Just a scallop today: tomorrow Orca will pay. If it's bred on the farm, you'll do far less harm, In the sea living free, then please let it be." Hywel Owen

YES

"Yes and that is the only time I eat them. I don't like to get them through unsustainable methods." Emma Lane

"I often do for a delicious after-dive snack!" Billy Hodgson

"If not diving on a marine sanctuary there's nothing better than fresh from the sea food." Olly

"Of course! Brown crab and scallops are part of the reward for decompression!" Richard James Clark

"I do, but not on my Seasearch dives!" Andrew Duff

"I take only what I can eat and only of legal size." Andrew Welsh

"Only scallops around Anglesey, where I know the water is safe, and only for personal consumption." Eric Toft

"I never take from a reserve, nor would I take undersized or berried lobsters." Mick McDonagh

"Yes, I did some scallop diving in Ullapool, took them out at 4pm and was eating them at 6pm – lovely." James Grimshaw

"I occasionally collect 20 or so scallops (enough for one meal) larger than my hand, which I think is the most ecological way to farm them. Small ones are left behind to grow. A dredged scallop bed looks like a barren war zone and will never recover." Sergio Fernandez

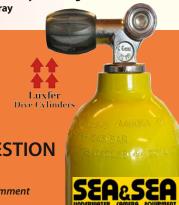
"Only for personal consumption and only if over legal size and plenty are being left." John Gray

Go to www.divernet.com to answer the next Big Question and you could win a £118 Luxfer 3-litre compact emergency pony cylinder from Sea & Sea. More on Luxfer cylinders at www.dive-team.com. Our latest winner is Alan Inglis from Glasgow.

THE NEXT BIG QUESTION

Do you log your dives digitally?

Answer yes or no, and feel free to comment



Scuba pioneer **Lotte Hass dies**

OTTE HASS, ONE HALF of the pioneering "Hans and Lotte" Idiving duo, has died, aged 86.

In the company of her husband, the late Hans Hass, who she met in 1947 aged 19 when she took a job as his secretary, Lotte was the first woman to dive regularly and adventurously with autonomous diving equipment.

She starred as an underwater photo- and film-making model before becoming a successful underwater photographer herself.

The pair used early rebreathers to work under water and, clad in wetsuit and often carrying a spear, Lotte became world-famous as the attractive and daring partner captured in many of the films made by Hans, nine years her senior.

The movies, effectively documentaries edited in feature-film style to appeal commercially. attracted wide acclaim from the late 1940s through the 1950s.

One of Lotte's earliest trips was to join a team led by Hans exploring the waters of the Sudan, after Hans withdrew his initial resistance to having a woman on the trip.

At the end of the project, which produced the Oscar-winning film

Under the Red Sea, and following Hans' divorce from his first wife, the couple were engaged.

Lotte's subsequent film roles included diving with sharks, at a time when to do so was thought by many to be extremely risky, along with rays, whales, whale sharks and other big

Enjoying good revenues from his film-making, Hans was able to buy a 52m expeditions vessel in the early 1950s. The couple's diving and filmmaking took them to areas including the Aegean, Caribbean, Galapagos Islands and Australia's Great Barrier

Featured internationally in magazines extending well beyond the world of diving, Lotte was offered the chance to go to Hollywood to pursue an acting career, but declined.

From 1958 and as a new mother. the Vienna-based Lotte largely removed herself from the public eye, as Hans also changed direction from underwater filming to behavioural and evolutionary research and environmental campaigning.

Over the following decades Lotte continued to give her full support to her husband's projects and, well into



the 2000s, continued to accompany Hans to speaking and other functions, at which she remained a charming and popular guest.

Lotte's autobiography, A Girl On The Ocean Floor, was published in 1970 and, in 2011, became a film with Yvonne Catterfeld playing the role of Lotte.

She was made a member of the Women Divers Hall of Fame and the Scuba Diving Hall of Fame.

Lotte is survived by her daughter Meta, Hans Hass died in 2013.

As **DIVER** went to press, a book of condolences had been set up at www.kondolenzbuch-online.de/cgibin/2015/books/000144.pl

The Hans Hass Institute (www.hanshass.org) asked that any donations be sent to the Shark Project (www.sharkproject.org), "dedicated to stop the destruction of the oceans and the extinction of sharks".



Ocean Giants with our Researchers & Experts



BEST OF ABOVE & BELOW WATER TRAVEL EQUATOR TO THE POLES



Tel: 01428 620012













Whitsand dumping illegal, MMO admits

THE GOVERNMENT has accepted that a licence allowing waste dredged from Plymouth's Devonport docks to be dumped in nearby Whitsand Bay was granted illegally.

The Marine Management Organisation (MMO), which is charged by the Government with licensing, regulating and planning marine activities in seas around England and Wales, has admitted that the Whitsand dumping licence was "made unlawfully" and has moved to have it rescinded.

For years, waste from Devonport and other parts of Plymouth's harbour has been dumped in Whitsand at regular intervals. Environmental campaigners have argued that the waste included toxic material and was choking reef areas near a designated Marine Conservation Zone. Casualties included protected rare pink seafans.

The latest licence was granted in March last year, for two years. This allowed for up to 300,000 tonnes of dredged silt to be deposited at the dump-site by the contractor, Boskalis Westminster.

In a judicial review, campaigners claimed that the MMO had not

considered sufficiently the effects of the waste disposal on vulnerable habitats. The MMO conceded the point after papers filed at London's High Court maintained that "inadequacies" existed in the process under which the MMO had issued the licence.

Welcoming the development, Terri Portman, a marine consultant and campaigner with Stop Dumping in Whitsand Bay, told press: "We have nothing against dredging, but in this day and age we know better than to simply use the marine environment as a rubbish bin. The ruling is a huge step forward, as the regulator thinks seriously about dumping. It is just not good enough to continue dumping in Whitsand Bay."

The MMO is required to issue a replacement licence, dredging at Plymouth being necessary to maintain shipping access. However, it would not be drawn on which sea area it might be considering for future assignments of waste.

"The judicial review proceedings are still very much ongoing and as such we cannot comment further on the case at this time." it said.

Roman timbers back in Guernsey

AN ENORMOUS 17m x 5m piece of hull from a Roman ship found in St Peter Port Harbour 30 years ago has returned to the Channel Island of Guernsey after years of conservation work in Portsmouth.

The wreck, named Asterix, was located by diver Richard Keen in 1985. Witnessing the timbers' return to St Peter Port, he told press: "It was a bit unbelievable because I didn't really expect we would find timber from the Roman period. Timber lasts no time at all in the harbour and there we were looking at a Roman boat, which was disappearing in front of our eyes."

He added: "I'm very happy to see it, I just don't want to handle the timbers. My back reminds me every time I see them of how heavy they were. But they are totally unique in northern Europe."

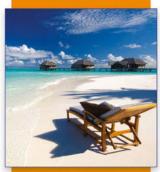
"In the past 30 years nothing like it has been found," said Museum Director Dr Jason Monaghan of the hull piece.

The plan is to put the section on public display – when a venue able to hold it has been prepared. "It is a very large object... so you're going to need a bigger space to display it than any of our museum galleries," said Monaghan.

diving holidays worldwide



Over 50 destinations



Luxury dive resorts



Liveaboards



Courses & Packages

Group discounts & FREE places See online for offers www.sportifdive.co.uk

01273 844919

Divers to undertake remote river dive



EIGHT MEMBERS of the British Sub-Aqua Club's Excalibur branch in York are to carry out a river dive in the Lake District - by walking four miles with all their gear to the site and back again.

The dive will be at Black Moss Pot, situated in a beck [smaller than a river, bigger than a stream on the far west side of Ambleside on 20 June, weather permitting.

"We'll be setting off from Stonethwaite, walking over rough, boggy ground and making a gradual 187m ascent to reach the site," organiser Mark Barrow told **DIVER.** "It should take about two hours to get there.

"Black Moss Pot lies just downstream of a waterfall, where the beck widens into a 60m-long ravine before narrowing again."

The divers expect to find "a solid stone bottom and perhaps some fish such as trout, roach and gudgeon, but not much weed".

The other divers will be Dave

Garnett, Gary Cameron, father and son Matthew and Daniel Roberts, David Goldsmith, Roy Kirke and Kirsteen Sandars.

Barrow is a regular river-diver. "About 60% of my diving is in rivers," he said. "I love diving water in the UK that no-one has been to, no matter how far it may be to get there.

"Rivers are an untapped environment and can have hidden treasures like lost goods or historic structures, such as the remains of old Victorian boating stations. Sometimes the vis can be awful, but when it's good it can be brilliant, with sometimes a peaty colour that can make for great photos."

A keen underwater photographer - "I enjoy practising macro skills in the shallows" -Barrow will record the Black Moss Pot dive in stills and video and load the results on his Facebook page, Beneath British Waters.

WWW.DIVERDET.COM

Florida divers help to avert invasion

IVERS HAVE HELPED to prevent the possible arrival of an alien marine species in Florida, by spotting and capturing an out-of-place individual.

Deb Devers and Lureen Ferretti came across the 10cm-long mimic lemon peel surgeonfish while diving beneath Blue Heron Bridge in Palm Beach County, a popular coastal dive-site featuring an artificial reef built to attract marine life.

Fortunately they recognised that the creature, native to the Indo-Pacific, did not fit with local species. They photographed it and reported their find to the Key Largo-based Reef **Environmental Education Foundation** (REEF) www.reef.org.

Experts identified the fish as a non-

Maldives acquisition

TOUR OPERATOR blue o two has acquired

Scuba Tours Worldwide / Maldives Scuba

strengthen its overall service to customers.

blue o two has operated its own fleet

of Red Sea liveaboards since 2001 and has

offices in the UK and Egypt. Last year, it

"The acquisition of Scuba Tours

Worldwide is an exciting step forward

for blue o two, as it has a great deal of

experience in the Maldives," said

added a Maldives vessel to its itineraries.

Tours, in a move that it hopes will

native species and the divers returned to the area, where they were able to relocate and capture it with a net.

Lad Atkins, REEF Director of Special Projects, told press: "We don't know what the effects would have been if the fish had become established and began reproducing. But if we wait to find out, then it's too late."

He added that, while it might seem relatively unimportant that "we took this little fish out of the water", it was under similar circumstances that "the lionfish [an established invasive species] got started. If only we could have taken the first few lionfish out of the water in the first place", he said.

An early lionfish sighting took place off Dania Beach in 1985, the creature believed to have been a discarded pet. It is illegal to release non-native fish into Florida waters.

Previous haltings of possible invasions have included the captures of a humpback grouper off Biscayne National Park in 2012, a whitetail dascyllus damselfish from under Blue Heron Bridge in 2009 and four Indo-Pacific batfish off Key Largo's Molasses Reef in 1999 and 2002.

"We're relying on divers, snorkellers and fishermen to be our eyes and ears on the water," said Atkins.

The captured surgeonfish is now at Ripley's Aquarium of Canada in Toronto, part of a display highlighting threats posed by invasive species.



UNDERWATER WEDDING proposals have become commonplace - but now they're being offered commercially.

The SeaLife London Aquarium on London's South Bank has launched a "Proposal Service". At prices from £250, the proposer can book its standard behind-thescenes tour for two plus surprise ingredient, with a diver popping up in a tank at the required moment wielding the timehonoured "Will You Marry Me?" sign or desired variation.

The pair get priority access

to the aguarium and tour with a host who's in on the secret. A halfbottle of champagne, flowers and photographs complete the package.



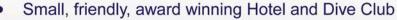
One proposal opportunity per week is available, at 2.30pm on Wednesdays. Details at www.visitsealife.com

blue o two director Nathan Tyler. ■



Oonas Dive Club Sharm El Sheikh





Daily dive boats exploring the best of the Red Sea

Special discounts for diving and accommodation packages

Exclusive small groups - learn to dive in a relaxed environment

> Best Bargain Hotel - Sharm El Sheikh Trip Advisor 2014



www.oonasdiveclub.com info@oonasdiveclub.com









WHERE THE ENVIRONMENT DEMANDS APEKS COMMANDS







TWIN SET MANIFOLDS AND CYLINDER BANDS

From a brand known for precision-engineering come the Apeks twin set manifolds and cylinder bands. The cylinder valve is where your air delivery system starts, so don't compromise the performance of your regulator with an inferior manifold system. The Apeks manifold features a metal-reinforced, soft grip, shock resistant hand-wheel, double o-ring sealing and nickel-plated internal parts for high gas flow and superior performance. The cylinder bands are constructed from wide, seam-welded, marine-grade stainless steel and are available in 5.5", 7" and 8" dimensions.









Bountiful reefs, curious wrecks and an exotic mixture of marine life mirror the diversity of the attractions found topside, making a visit to Aqaba the perfect blend of culture and adventure.



Tel: +962 (0) 32035360 , E-mail: info@aqaba.jo , P.O.Box: 2565 Aqaba 77110 Jordan

Major grant for MCS projects Tourist tax

IHE MARINE CONSERVATION Society has received a £175,000 grant from the People's Postcode Lottery for its 2015 beachcleaning projects and sustainable fisheries campaigns.

As a result, it says, it will be able to "aet many thousands more volunteers out on local beaches during 2015" and to produce new guidelines and a mobile phone app for shoppers to use when buying fish in order to know the most sustainable seafood choices.

The grant is welcomed particularly given that, while it has had financial support in the past from organisations including Reader's Digest, the Crown Estate and the now-defunct Sea France, the MCS has not enjoyed any major sponsorship in recent years for its beach-clean and other projects.

"Litter levels have been rising, not falling, through the years we've surveyed beaches," said Sam Fanshawe, MCS Chief Executive, at the announcement. "If we're to turn the tide on litter, and remove the threat that litter poses to wildlife and to people, we need to scale up our beach-litter clean-up and survey work.

"That's why this support is so timely. It is really exciting that with the support from the players of People's



Postcode Lottery we can get even more people actively involved in not only removing rubbish from our beaches but finding out where it comes from, so we can stop it getting there in future."

The new sustainable fisheries guidance and app are arriving in a period when, says the MCS, "over 70% of European fish stocks are classed as overfished or depleted".

TV presenter and MCS supporter

Kate Humble said that the society was "doing fantastic work" regarding the health of Britain's seas and coasts, but added: "The thing that concerns me most is that so many people simply refuse to accept that the sea is not a bottomless resource of fish, that things can be dumped in it and will somehow magically disappear, that it can continue to be exploited the way it is now, with no ill-effects.

"This absolutely has to change."

to tackle waste

A PLAN TO LEVY a "green tax" on visits to the Maldives has been approved by the islands' government.

From November, all tourists staying at resorts or on liveaboards will be charged at a rate of US \$6 per bed per night.

Revenue from the tax will be directed toward the implementation of more effective waste-management systems, a long-standing area of concern for the relatively cramped, tourismorientated Maldives.

According to tourism authorities, visitors to the islands outnumber residents by three to one annually. Last year, visitor numbers exceeded

The new "green tax" effectively replaces a "bed tax" of US \$8 per night dropped last November. Another levy, the Tourism Goods and Services Tax, increased from 8% to 12% recently.

Overall, visitors are, therefore, paying slightly more services tax and slightly less nightly tax - with the latter now directed to a pressing environmental issue.

TEXAN WHIRLWIND IS MISS SCUBA INTERNATIONAL

AN AMERICAN, 24-year-old Tabitha Lipkin from Texas, has won the Miss Scuba International competition after beating 13 other contestants in Malaysia late last year.

The event was created by Robert Lo, who runs Sipadan Mabul Resort and Mabul Water Bungalows. It brings together women aged 18-28 who have already won national heats in a contest that mixes beauty pageant with tests of ability to scuba dive and interest in the marine environment.

The ability to work with others, by placing contestants in local outreach meetings, plus public interviews to test character, articulacy and congeniality, are also considered, alongside stage performance and natural beauty. The winner is chosen by a panel of nine judges.

Since graduating in journalism, Lipkin has worked as a freelance TV sports reporter in San Diego. She is also a photo-journalist and social media director for a sailing magazine founded by her grandfather.

Lipkin says she has "always been



drawn to the sea", and first dived in 2010. Interested in marine conservation, she has worked for the Scripps Institution of Oceanography.

Besides sailing she says she is a jetpack [waterjet] pilot and instructor, flies and loves travel and writing.

Accommodated with the other contestants in Mabul, she admitted to being "nervous, not because I wanted to win but, more importantly, I wanted to make friends and I wasn't sure what

these 'beauty queens' would be like." They turned out to be "fantastic", she said, each "unique and personable".

"Our first week of the two-week competition was spent diving, getting to know each other and the role we each play as individuals in marine conservation," she said. The diving was "incredible", her favourite spot

being the "underwater metropolis" of Sipadan with its "sharks, green turtles, bumphead parrotfish and barracuda".

The second week at Sutera Harbour in Kota Kinabalu, Sabah, was more "what you might imagine from a beauty pageant" with "best behaviour" and "full make-up and hair".

The finals involved national

costume (hers a Statue of Liberty/ Wonder Woman hybrid) and bikini displays, a "stage talent" test, eveninggown walk and on-stage O&A session. Of her win, she said: "I was in shock, and still am, really."

Thai Cattaleya Schulze,

22, was First Runner-Up, and Amber Gamble, 23, from Ireland was Second Runner-Up.

As Miss Scuba International, Lipkin says she will be diving in South-east Asia and other parts of the world this year, and writing about her experiences. www.tabithalipkin.com, www.missscuba.com

24-hour challenge in new photo contest

Underwater Photographers has created a ground-breaking photo competition format that allows an on-the-day splash-in event to be contested across the UK and beyond.

The British & Irish Underwater Photography Championship (BIUPC) will consider photo entries taken at any site in the UK or Ireland from 10pm on 4 September and submitted by email by 10pm the next day.

An electronic dating system has been devised to ensure that submissions are dated honestly.

Further, in a bid to attract as many participants as possible the contest is open to images taken on any type of camera that is or can be waterproofed; conventional SLRs and compacts, smartphones, tablets, polecams – anything goes.

Image enhancement will be allowed, while categories are defined by the sophistication of the cameras and techniques involved, eg wideangle and close-up.

Entries will be judged by a panel of three and results announced at a

function on 19 September. "The aim is to both showcase and recognise the talent that exists in the British and Irish underwater community," said Paul Colley, BSoUP Competitions Secretary. "The images created will be a celebration of the diversity of marine life that exists around our shores and within our inland waters."

Joss Woolf, BSoUP Chair, said:
"The major prize will be the Peter
Scoones trophy, in honour of our late
co-founder. He was a driving force in
the creation and development of the
society." Although a BSoUP event,
the competition has its own website,
www.biupc.org

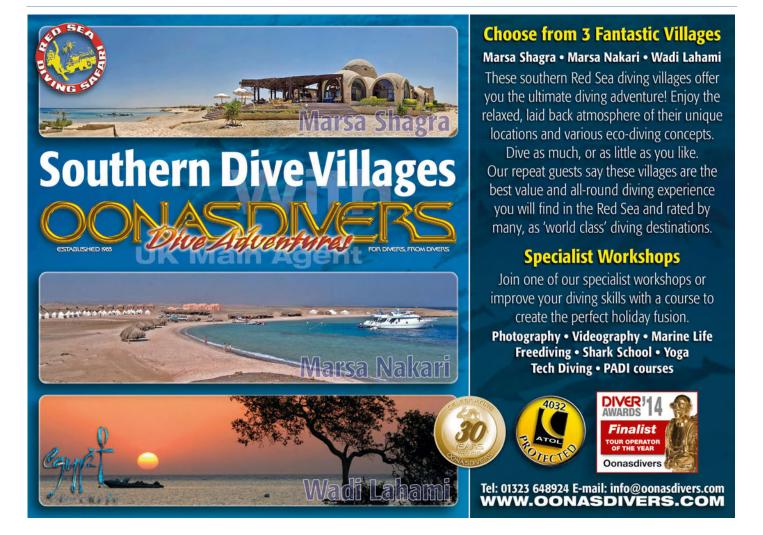


Seven bodies benefit from Sea Changers grants

THE BRITISH FUND-RAISING charity Sea Changers, which collects money for UK marine-conservation groups, has recently placed seven grants ranging from £500 to £1000.

Benefiting are British Divers Marine

Life Rescue, for its Mobile Education Pack; Durham Wildlife Trust, for its North Sea Explorers Project; Manx Wildlife Trust (ID guide on invasive species); Marine Conservation International (Thames Harbour porpoise project); the National Lobster Hatchery (children's book); Scottish Seabird Centre (observation cameras) and the Angling Trust (education and awareness signage). www.sea-changers.org.uk





• C€ approved by independent third party test-house • built-in redundancy as standard : the only rebreathers on the market with two independent oxygen controllers (patented) • two independent, rechargeable power sources hardwired to the rebreather controllers • four independent displays: two HUDs, a HUS and a crystal clear primary wristset display audible warning system (independent of

the displays) • Temp Stick scrubber monitor (patented) with effective warnings • CO₂ sensor Auto Diluent Valve

 proven high-performance scrubber
 choice of counterlungs - Back Mounted or Over-the-Shoulder software programmable to set depth limits, setpoint switch mode, diluent choice, deco warnings... • nitrox deco with trimix options, user variable gradient factors and multiple gases • CC/OC bailout valve • travel-friendly units: dry-weight (w/o cylinders) - Inspiration evo = 17kg, Inspiration evp = 19kg pc log download • 18 years CCR production pedigree • full customer Inspiration xpd = 20kg • 12 language options • support, aftersales, service & spares • the rebreathers of choice for photographers, film-makers, cavers, marine biologists, expedition divers, deep-support divers and rec & tec divers worldwide



Buy AP dive kit direct at apdiving.com 01326 561040





NORTHERN DIVER

WRTHERN DIVER



As a result, we aren't exhibiting at this year's London International Dive Show. However, head to our website for some great dive show offers.

These are available throughout February!

NEW PRODUCTS

HID Drysuit

Our technical tri-laminate drysuit for those who dive where others dare not. Specification

available on our website.



Voyager Bag Range

Our updated & expanded range of *Voyager* dive bags, with a uniform sleek design, covers all bases.

NORTHERN DIVER

Range Includes:

NORTHERN DIVER

Cabin

Quest

Maxi Quest

Lightweight

All Terrain Lightweight

Thermicore Undersuits

For protection to the core, dive Thermicore. Our latest 3-piece undersuit features all-new graphics & useful extras. For more extreme conditions, there's the Thermicore Sub-Zero.

www.ndiver.com

Diver locates river body in less than a minute

FTER POLICE maintained that river conditions made underwater searches for a missing teenager in Durham's River Wear too dangerous, a commercial diver who knew the river well travelled 170 miles from his home to Durham to search – and found the body of Durham University law student Euan Goddard, 19, within a minute of entering the water.

The body was close to where Goddard had last been seen near

Framwellgate Bridge.

Trevor Bankhead, 45, originally from Durham, has dived in the Wear some 500 times. He heard about the missing teenager from his firefighter brother Gary, who was involved in the search. "Nobody knows that river like me and my brother – I know the riverbed like the back of my hand, and I knew that I had to do something to help bring closure for the boy's mother," Bankhead told press.

His hunch that the body would

be caught up under the bridge proved correct. "At about 9am I went into the water and I had been down only for about 30-40 seconds when I found him. The water was about 2m deep.

"I knew it was him. We had a moment together – I said to him: 'I've come to take you home, my friend.'"

Bankhead surfaced and reported his find to the police, whose divers retrieved the body and identified it as that of Goddard.

Cayman divers seek funds for reef restoration

A FUND-RAISING campaign has been launched to help finance a major reef-restoration project in Grand Cayman, conducted by volunteer divers supported by local dive operators and overseen by the Cayman Islands Department of Environment.

Last August the Carnival Magic cruise ship dropped its anchor on the delicate area off George Town, badly damaging some 1070sq m of coral. Since then, teams of divers have been working on the Cayman Magic Reef Recovery project to remove tons of dead coral, rubble and sediment.

It is hoped that, with the necessary stable substrate and sunlight, corals will gradually reestablish themselves. Nursery trees are being set up for the faster development of live coral fragments that can then be used to reinforce other corals gaining a foothold on the reef.

When cruise ships arrive in Grand Cayman the port authority uses local contractor Bodden Shipping to direct them to the correct spot and signal when to drop anchor. With reported difficulties in establishing blame for the reef damage, and no fines as yet imposed, finance for the reef repairs is getting tight.

"We've decided to have a fund-raiser to recoup some expenses, buy supplies and go forward," said Keith Sahm, General Manager for Sunset House and, with Lois Hatcher of Ocean Frontiers, central co-ordinator of the project. "The goal is to raise \$10,000 and we've got the Cayman Government's full backing."

Donations can be made online with the National Trust for the Cayman Islands at www.nationaltrust.org.ky

RUSSIANS DIE IN CAVING INCIDENT

TWO RUSSIAN MEN died after a double incident near the entrance of Tiger Cave in Ratchaprapha Reservoir, Khao Sok National Park, Thailand in late December.

According to regional reports, rebreather divers Dmitry Dokuchave and Alexander Solomatin were with another pair, the group having chartered a vessel to make the dive.

The pairs split, one to search the outer wall for a second entrance to the cave while the Russians were to enter through the established entrance, at a depth of 24m.

Dokuchave and Solomatin were "highly certified technical-, rebreather- and cave-divers who had done many cave and rebreather dives before", a local dive centre manager who knew the men told the *Phuket Gazette*.

According to computer records, Dokuchave stopped during descent 20m deep, "so he wasn't inside the cave yet".

He remained there "for about two minutes", perhaps trying to fix a problem, and "probably told the other diver to continue his dive" before he "shot up to the surface", arriving there unconscious.

Solomatin "must have known something was wrong". He ascended more slowly and, presumably not having witnessed his buddy's rapid ascent, mistakenly thought that Dokuchave could be in trouble under water and redescended.

Dokuchave was found by the boat crew and divers still at the surface and rushed ashore by other Thai seafarers, but was confirmed dead at the scene.

Solomatin was subsequently found by the other diving pair, in need of emergency treatment. It was not clear whether he was found after an underwater search or at the surface, and whether conscious or not. He was transferred ashore and to Surat Thani Hospital, where it was confirmed that he had died.

Tiger Cave was found only last April. It has been penetrated to 500m distance and 70m down.



WWW.DIVERNET.COM 23 DIV







MISSION FAIRLY CASUAL

Over the past few years a raft of Hollywood stars and wannabes have declared their undying love for all things scuba, but, as I have regularly pointed out, none of them has ever turned up at a dive site near me. That situation has not changed, but only because I was diving in the wrong place.

Tom Cruise is one of the hottest A-list stars on the planet and is currently filming the latest *Mission Impossible* movie, in which he is rumoured to scuba dive. Like all of us, however, he gets to go on holiday, and he spent his break in the Cayman Islands, which is famous for the local diving.

And because Tom likes to do his own stunts and to

look good doing them, he decided to brush up on his scuba skills whilst he was there.

At this point you would expect a private instructor, a personally chartered boat and a closed stretch of water to enter the story, but no, not our Tom.

He simply strolls along to a local school and signs up like he's a normal punter, to the amazement of staff and the other students alike. If you thought you had it tough learning to mask-clear, imagine doing it while being watched by Tom Cruise and with the *MI* theme tune running through your head.

Anyway, good for you, Mr Cruise. Fancy Scapa some time?

and a camera to various depths between 5000 and 10,585m and videoed what came in to dine.

Astonishingly, however deep they went they found something trying to eat the bait, including supergiant amphipods that looked like dog-fleas a foot long.

Amazing place, the sea.

Smart move

It's an obvious career move. Politician Dan Halloran's career was ended by a series of financial scandals that could have landed him with up to 50 years in jail, so he became a scuba instructor.

Makes sense to me. As any instructor out there will tell you, there isn't enough money in scuba for him to get involved in any sort of financial trouble, except not having any.

Hole in her bucket

Most of us have our own bucket-list of places to see and things to do before we kick the proverbial. Now imagine you've had the opportunity to cross off one of the really big items, and the reality turned out to be a total bust.

Travel-writer and scuba-diver Erica Bray no longer has to imagine. She had always wanted to dive the worldrenowned Blue Hole, a vertical sinkhole in the ocean some 50 miles off the coast of Belize. It became famous when Cousteau dived it in the 1970s and looks amazing in every aerial photo you've seen.

You can't even look at a photo without wanting to drag on your gear and drop into the clear waters for the dive of a lifetime.

Back on Planet Reality, Erica's day started badly when she got seasick on the ride out, got worse when she found out that her rented wetsuit wasn't keeping her anywhere near warm enough, and was finally fouled up beyond redemption when she had one of those dives when your mask inexplicably leaks like a sieve and continually fogs up.

All she saw was blurry, foggy, blue nothing, and couldn't even appreciate that because she was so cold.

Worst of all, throughout that

miserable experience, would have been the nagging thought that when the dive was over she had another 50mile seasick boat-ride home.

Still, Erica's bad day hasn't removed the Blue Hole from my bucket-list.

In the slipstream

Ask anyone for the secret of underwater photography and they'll tell you to get as close as you possibly can, then get closer. Mostly this is good advice, but every now and then it backfires.

Keri Wilk was photographing sperm whales off the coast of Dominica when he found himself in deep sh..., er, trouble.

He and the party of 'togs he was leading found themselves approached by a seemingly calm whale that took one look at them, went head down and started to poo. That's relatively normal whale behaviour and doesn't usually last long, but this time it was like being in the bowl of the B&B loo the night after the entire club had a dodgy curry, and was made far worse when the animal started deliberately waving the doo-doo around with its tail until the clear blue water turned to brown soup.

According to Keri a "poopsplosion" (his word) like this is a known sperm whale defence mechanism, but one he's not seen before in decades of whale-watching, and

he counts himself privileged to have witnessed it. Apparently there was nothing to smell while his mask remained in place, but taste was a different story.

So, something else to add to my list of things to worry about when diving; being caught in a sperm-whale poonami.

And you can find snaps and video of the entire poopnado experience online.

Pressured fish

A multi-national team of scientists taking mud samples from the bottom of the Marianas Trench have discovered a new, as-yet unnamed species of fish living five miles down.

It's the deepest fish ever found, and the discovery was made when the 25cm-long creature swam into the field of view of a camera recording the mud-sampling process.

It was described by one of the team as a cross between a puppy, an angel and an eel, but that probably tells you more about the long-term effects of watching videos of mud-sampling than it does about the fish. The team took 105 hours of video, and the fish is on-screen for a couple of minutes.

University of Aberdeen scientists on the same expedition took a more direct approach. They tied a dead fish as bait to a pole, dropped the pole

Guided missile site

This is the time of year when people make their holiday bookings for summer, and there's always pressure to come up with something new.

So, for the diver who has been everywhere and seen everything, how about diving a guided missile silo?

It turns out that there are a couple of places offering missile-silo dives in the USA, and for a hundred quid you'll get a couple of guided dives in either.

That has to be a logbook entry to covet.

Live fast, die young

Did you know that bold, adventurous fish tend to get the most food and grow the fastest and end up the biggest? And are also the most likely to seize a baited hook and find themselves landed and eaten?

Well, it's true. There are old fish and bold fish, but darn few old, bold fish.

I mention this here as the new diving season is just around the corner and it seems like something worth remembering next time you go diving.

Sea People















FLY DIRECT:



Heathrow, Gatwick, Manchester, Glasgow,* Birmingham,* Bristol,* Cardiff,* Exeter,* Newcastle* & Norwich*



Gatwick



Belfast, Gatwick, Manchester & Newcastle



East Midlands,** Glasgow,** Leeds Bradford,** Manchester** & Newcastle**

Terms & Conditions apply. *Summer Routes. **Commence May 2015.







East Midlands



Birmingham, Bournemouth,* Bristol, Edinburgh, Glasgow (Prestwick),* Leeds Bradford, Liverpool, London Stansted & Luton



TWENTY-FOUR OF THE BEST

You pick them, we present them – these are the annual awards for the people in the diving industry you consider the most deserving of recognition

HE DIVER AWARDS, now in their 17th year, remain unique in the UK diving trade, weighty trophies that are conferred only on recipients that have attracted the genuine votes of thousands of DIVER readers, online or through magazine forms.

Beware imitators lacking the validation provided by reader voting on a massive scale!

Our experiment the previous year, when for the first time we offered no holiday prize incentive, proved a success, barely denting the volume of entries. So we repeated it for the latest round of awards.

We would like to think that you place your votes purely from the urge to see the right people rewarded – or, at least, because a favoured supplier has asked for your support and you approve of that supplier sufficiently to give it the nod!

The Awards are passed to the winners at the London International Dive Show on Saturday, 14 February, with Monty Halls once again presiding over the proceedings. And those winners will know that, for the next year at least, their trophy or runner-up certificate will be a valuable kitemark of excellence.



DIVER BRAND OF THE YEAR

1st Suunto 2nd Mares 3rd Scubapro



You might expect the most popular dive-gear manufacturers to be those offering a range of products wide enough to impress divers who, if they don't buy Brand X fins, might



be tempted by Brand X regs or BCs.

First-placed in 2014, and not for the first time, Suunto bucks this tendency. Divers connect it with one thing – computers – and they like its instruments. Also, DIVER probably receives more letters praising Suunto's aftersales service than it does for any other manufacturer.

The company runs many focus groups in the

UK, says Business Manager Ryan
Crawford. "I'm grateful to all the
divers who've given up their time
to tell us what they think of us,
our products and to help
develop products of the
future – ensuring that we
keep moving forward and

providing our customers with the tools they want for their underwater adventures."

Last year's winner Mares, a company that does cover all the bases, swaps places with Suunto to take runner-up spot. It launched the MR52X Fusion regulator in 2014, and the Italian flair shown in the design of its products continues to appeal to fashion-conscious divers.

Scubapro is similar to Mares in offering an extensive range of good-quality products at competitive prices, and 2014 saw calculated evolution of existing popular products such as the Everflex drysuit.

That strategy is clearly working well, because after a brief absence it's back in the 2014 top three.

DIVER PRODUCT OF THE YEAR

1st GoPro Hero 4 2nd Suunto DX 3rd Apeks Black Sapphire



The GoPro Hero camcorder, third-placed last year, has continued to accumulate the sort of rapid refinements that have propelled it to top spot by a country mile in this category. The Hero 4 model has proved especially popular.

The compact size and ease of use of this product coupled with the image and video quality make this camera a must for divers who want to record and share via social media their underwater exploits. It's no great surprise that this tiny package with its plethora of accessories garnered so many votes – but what does happen to all those hours of underwater footage?

Brand of the Year Suunto takes second place with its "one-stop shop" DX computer model. The DX was the first wristwatch-style model with a Fused RGBM algorithm and modes that can be used for nearly every genre of diving, from breath-hold to open-circuit air, nitrox or trimix to closed-circuit rebreathers.

Last year Apeks, still most associated with regulators, was in the top three with its XTX200 model. This year it's back with the Black Sapphire, which is fitting as it was designed to celebrate the company's 40th anniversary.

Our tester Nigel Wade found the Black Sapphire to have performance to match its good looks. It might be a limited-edition model but that doesn't seem to have inhibited voters' enthusiasm for the concept.



DIVER TOUR OPERATOR OF THE YEAR

1st Scuba Travel 2nd blue o two 3rd Oonasdivers



They are the leading three arrangers of diving holidays in the UK, certainly as far as DIVER readers are concerned, and this year's voting produced exactly the same result as last year – and indeed the year before that – with Scuba Travel in first place, blue o two second and Oonasdivers third.

If it seems a wee bit boring to see the same names triumph every year, remember that it's stability that we value in any travel company, and divers have clearly come to know that they can rely on these three.

Other respected tour operators may specialise in higher-end holidays but the winners deal in

volume and presumably put accessibility, value and service high on their mission statements.

But first place is of course the holy grail. "It's impossible to explain just how much winning this award means to everyone at Scuba Travel, and this year feels extra special, as it's our 10th Tour Operator of the Year award," said Director Angela Nordin. "Wow – who'd have thought we could have achieved so much in the 20 years since we started running trips out of the dive-shop!

"We work hard to keep the quality of our trips as high as possible, at prices that are genuinely affordable, and it's a wonderful feeling to know that our love and enthusiasm for diving is matched only by that of our customers. Thanks everyone for your continued trust and support."

blue o two stands out from this trio by virtue of not only being a tour operator but also having its



own fleet of liveaboards in the Red Sea and Maldives, which have helped to win it a large and loyal following.

Oonasdivers, always closely associated with southern Egypt, now has an ever-growing portfolio and destinations such as Tobago featured heavily among its 2014 offerings.

DIVER DIVE CENTRE OF THE YEAR

1st Camel Dive Centre, Sharm 2nd Red Sea Diving College, Sharm 3rd Stoney Cove, Leics

Last year dive centres in the ever-popular Red Sea destination of Sharm el Sheikh recorded a clean sweep in this category, and this year the top two outfits remain in their 2013 spots, though a very British interloper at third place has spoiled the party for Egypt!

But first the winner, and the news that Camel Dive Centre has held Red Sea Diving College to second place once again.

"British divers have shown us huge loyalty during our 29 years of operation," said Camel founder and owner Hesham Gabr. "Our divers often tell us that they don't feel like tourists when they stay at Camel and that they love the fact that all you need for a perfect diving holiday



is right on your doorstep. This third award from DIVER readers is further motivation to improve and keep deserving our new and old guests' trust. Thank you!"

Red Sea Diving College, also long-established,

has enjoyed multiple successes of its own in this category over the years, helped by having its own popular liveaboard *VIP One* to complement its shorebased diving and training activities, and a confirmed fanbase.

Meanwhile third place goes this year to a familiar name, for many readers perhaps the first place they ever dived – the National Diving Centre at Stoney Cove in Leicestershire.

The voting indicates that this everdeveloping inland facility has as important a place in British divers' hearts as ever, not only for training or when the weather's bad on the coast but simply for a good day out!

DIVER LIVEABOARD OF THE YEAR

1st blue Horizon 2nd Whirlwind 3rd Valkyrie



What can you say – when it comes to "massmarket" liveaboards, blue o two knows exactly what it's doing, which is presumably why one of the fleet, the 41m flagship *blue Horizon*, has just triumphed in this category for the fourth time and the second year running.

If it isn't blue Horizon it's blue Melody in pole position – this British-owned Red Sea fleet knows how to satisfy its clients, and it does carry a lot of potential voters.



Having recognised blue o two's achievement, the voting at the very top of this category is notably close, so Tornado Marine Fleet shouldn't feel bad about coming second with Whirlwind, another perennial favourite liveaboard of DIVER readers and up a place from 2013.

Whirlwind is another Red Sea liveaboard in the grand style, 36m long and able to carry 20 passengers. Like blue Horizon it has been sailing the Red Sea for nine years.

The newcomer in third place and another close contender is more of a surprise – mainly because it operates nowhere near Ras Mohammed. The 22m Orkney-based mv *Valkyrie* has been carrying divers around Scapa Flow dive-sites for some years, and captain Hazel Weaver clearly runs a happy ship. How much does the quality of the food have to do with its popularity? Customer service is what the **DIVER** Awards are all about!

DIVER RETAILER OF THE YEAR

1st Simply Scuba 2nd Divelife 3rd 4th Element



No change at the top is the headline in the divestore category, where online maestro Simply Scuba retains its crown for yet another year, streets ahead of its nearest rival in the voting.

Simply Scuba is an authorised dealer for most of the major manufacturers, and Its "loyalty bubbles" incentive scheme must help in building the fanbase. It also has a physical shop presence, in Fayersham. Kent.

"Each year this competition gets fiercer, and to win for the sixth consecutive year is a real honour and a reflection of the dedication of our team to keep improving the service Simply Scuba offers," said founder and MD Gerrard Dennis.

"The dive market continues to make headway

despite strong competition from other sports, but it's thanks to all UK dive stores that the sport remains a passion for so many. To be recognised as the top retailer is an honour and privilege and we will continue to strive to deliver the best service possible. "

The nearest rival was a newcomer to the top three in the shape of Divelife, although it only just beat last year's third-placed 4th Element Diving back into that position by a whisker.

Divelife also has a thriving online business representing most of the major manufacturers, as well as a physical retail outlet in the heart of the North-west, and in addition it offers photographic and technical equipment, training

Staff at Simply Scuba.

for the major agencies and servicing.

4th Element (not Fourth Element the dive garment maker) is rather different. Its training and retail outlet in Stockton-on-Tees plus an online operation that majors on Apeks products as well as other lines have helped it to build a loyal following and kept it in the top three.

DIVER DESTINATION OF THE YEAR

1st Egypt 2nd Maldives 3rd Malta



Egypt's political problems continue, and when it comes to attracting tourists to any Middle Eastern destination things still aren't what they once were, but through it all British divers have continued to support their favourite destination.

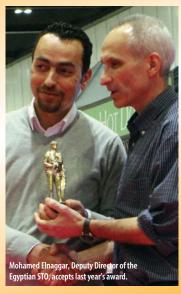
Red Sea diving is better than ever as a result of the reduced pressure on the reefs, and goodvalue holidays are still a feature, so no wonder Egypt retains its lofty position in this category.

"We're thrilled to have won yet again this prestigious award," said Omayma El Husseini, Director of the Egyptian State Tourist Office in London. "It's delightful to receive the recognition from DIVER and the diving enthusiasts."

Egypt was runaway but second and third places were separated only by the finest of margins. The Maldives shaded it, beating last year's runner-up into a very creditable third place.

The Maldives continues to offer the tempting prospect of exciting big-animal boat-diving and solid house-reef diving from luxury resorts or luxury liveaboards.

The luxury has become more expensive, but adding to the mix now is the prospect of economical holidays on populated



islands. The destination has also shown itself willing to tackle conservation issues.

Malta has achieved what no other Mediterranean diving destination has quite managed – a wide variety of shipwreck attractions to suit everyone from beginners to tec divers, including wrecks with real back-stories, plus interesting topographic and marine-life attractions.

But both Malta and the Maldives should beware – this year the UK was breathing down their necks for a topthree spot!

DIVER NEWCOMER OF THE YEAR

1st Hollis Explorer 2nd Suunto Eon Steel 3rd Divesangha



DIVER takes the voting into account but also exercises its discretion in this category, to make sure that it reflects genuine innovation. The category is open to being won by people or companies, though it mainly tends to be products. There's a special new trophy, too.

Rebreather users are inevitably in the minority of voters, but it was clear that a large number of readers, whether users of not, agreed with our view that the Hollis Explorer rebreather represented something of a technological breakthrough in the recreational market.

Hollis has combined semi-closed single-gas simplicity with closed-circuit electronic gas monitoring to create the world's first hybrid



rebreather – it's futuristic-looking, lightweight, compact and easy to use, though also expensive, so whether it will conquer the world remains in the lap of the gods.

Suunto picks up yet another accolade in this category. It won Brand of the Year and one reason for that was its Eon Steel, the first divecomputer to combine a customisable bright TFT display with modes including freediving, opencircuit air, nitrox and trimix as standard. A CCR mode will be available for download in 2015.

The company Divesangha Apres-Dive Apparel takes third place. Its garments feature subtle livery in place of shouty slogans and seem to have brought a certain sense of style to the market. They also incorporate an innovative "Hung Dry" feature, and each T-shirt is embroidered with its own number, because we divers are nothing if not individuals!

Scuba Travel 0800 0728221 dive a scubatravel.com

Thank you for voting for us!

It's impossible to explain just how much winning the Tour Operator of the Year award means to everyone at Scuba Travel, and this year feels extra special... it is our 10th Tour Operator of the Year award. Wow. Who would have thought we could have achieved so much in the 20 years since we started running trips out of the dive shop!

We are proud of the expertise we have in our team and their passion for diving, in all its many forms. It's this passion that keep us pushing forwards each and every year, developing new destinations and holidays.



We work hard to keep the quality of our trips as high as possible, at prices that are genuinely affordable. And it's a wonderful feeling to know that our love and enthusiasm for diving is only matched by that of our customers!

Thanks everyone for your continued trust and support.

Tour Operator of the year



www.scubatravel.com

force 6 as we ploughed ahead directly into it. Although we had been hugging the coast, our boat was still taking a mauling, riding up the neverending 12-footers and crashing back down again with tedious repetition.

Everyone had hunkered down in their cabins as we endured this onslaught from a furious sea along our 100-mile, 16-hour journey.

At midnight in our triple cabin the porthole gave up its fight against the pressure of the waves and burst open with a thunderous boom.

A huge inrush of water followed as the sea entered and dumped what seemed like a bathful onto the sleeping Andy Alfred in his bulkhead bunk.

Screams of surprise and shock, along with many expletives, were followed by hushed sniggers from the unaffected as Andy leapt around the cabin soaked from head to foot, dancing without dignity in nothing more than sopping wet boxers.

His mattress had been rendered unusable so, still dripping sea water, he made his way to the next cabin, in the knowledge that there was a spare there.

His frantic knocks were answered by the occupant, who, on being confronted by this drenched, underwear-clad apparition, turned, grabbed a life-vest and headed at speed for the deck, his face a mask of fear – surely the boat had to be sinking?

At the same time a fellow-passenger awoke to find a trevally floundering on the pillow of her spare bunk. It had entered through an open porthole on the main deck. We were left in no doubt that this was an adventure, not a cruise.

Pictured: The hull of the Scalaria from the viewpoint of resident anemonefish.

THE LUST FOR RUST



The risk of rough passages and flapping fish on your pillow is surely not too high a price to pay to dive 15 choice northern Red Sea and Gulf of Suez wrecks in a week, is it? NIGEL WADE gives the itinerary a blast



Right: The huge reversedirection hand-wheel on the *Scalaria*.

Far right: Spanners rusting in their rack in the *Scalaria* tool-room.

Clockwise from below:

The bow of the *Turkia* rising from the seabed; snagged nets, soft corals and chromis on the wreck; tyres stacked on deck provide a limited foothold for molluscs; the engine-room and boilers.





I had joined a group of wreck enthusiasts on the Red Sea liveaboard *King Marcos II* to undertake an itinerary that would take us from the port of Hurghada 150 miles north along the Gulf of Suez and back.

We would visit only sites that might sate our lust for rust. On route we would have plenty of time to research and debate the history, tragedy, negligence and often violence underlying the hundreds of thousands of tons of shipping that lie broken and decaying at the bottom of the ocean.

Early the following morning we woke, relieved, to a silent calm. We had reached our first destination in the Egyptian Red Sea's northern Gulf of Suez. The strong winds had abated, and in their place a gentle breeze rippled the water surface, below which lay the wreckage of the ss *Scalaria*.

This 125m, 5683-ton tanker was built in 1922 at the Swan Hunter shipyard in Newcastle, fitted with triple-expansion steam engines capable of propelling her at a top speed of 11 knots. As with all "Shell Tankers" she was named after a mollusc, in this case a twisting bivalve.

Her demise came on 19 October, 1942. Moored at Ras Gharib after taking on 7000 tons of crude oil, she was discovered and attacked by a German bomber, a Heinkel HE111.

The plane dropped a torpedo that struck the ship on her starboard side, aft of the bridge in number 3 tank.

This was later followed by a bomb that struck the foredeck, setting the whole ship ablaze. The fatally crippled *Scalaria* slipped beneath the waves shortly afterwards.













O%
FINANCE
AVAILABLE



FREE SIZE



MOBILE SHOPPING



IN STOCK READY TO SHIP



NEXT DAY
DELIVERY



ADVICE VIDEOS

360° PRODUCT



6th year running!

www.simplyscuba.com
online dive store

scan to shop

Right: Technicolour corals adorn the deck-ribs on the elegant Carnatic.

Below: The Tile Wreck is it the Marcus, or the Chrisoula K?

The remains of the tanker lie scattered over a wide area on a sandy seabed with a maximum depth of 23m. The bow and stern are still upright a few metres below the surface. They are separated from the midships section, a mass of twisted pipework, ladders and hull-plating.

The three boilers and triple-expansion engine were clearly visible aft, as was the huge main engine reverse-direction handwheel. With the help of tour guide Steve Rattle we found the tool-room, where massive spanners, now rusted and decaying, sat on their rack in size order.

A large shoal of trevally hunted as one for their breakfast on the wreckage, briefly joining the divers in the vain hope that we would scare some of the resident species into breaking cover.

At the end of the dive I found a pair of Red Sea anemonefish - the view from their home was of the rising bow defiantly upright, as if in protest at the ship's violent demise.

AFTER BREAKFAST we made our way further north to the wreck of the steamship Turkia, which sits upright on a sandy seabed in 30m with its bow facing west towards the shore at Zaafarana.

Built in Hull by Earles Shipbuilding & Engineering Co in 1909 the vessel was originally Livorna, but was renamed in 1934 following a change of ownership.

The Turkia is 100m long with a 14.5m beam and had a reciprocating tripleexpansion engine. Her final voyage began in New York in early May 1941, loaded with wartime cargo including tyres, wire

coils, ingots, vehicles and firearms. She also carried a large consignment of explosives.

Reports suggest that she was abandoned on 17 May following a serious and developing fire in her number 3 hold. The explosion that rocked her just 10 minutes later proved fatal, and she slipped beneath the waves. Because of the nature of her sinking Turkia doesn't appear on Lloyds War Losses records as a casualty, but is listed simply as a wartime loss.

We entered the water under the mid-day sun. The entire wreck was visible below, lying upright on its keel with ripples of light dancing across the deck.

Snagged fishing-nets festooned the aft port railings, draped motionless in slack water and covered in dirty marine growth. The ironwork beneath these had been left broken and twisted as fishermen had tried in vain to retrieve their lost property.

Soft corals had long ago made the wreck their home, reaching towards the surface and providing a haven for scores of yellow-tailed chromis.

Anemones grew on the decking among the remains of mortar shells still tightly crammed together, their wooden boxes long ago replaced with coral concretion to make the explosives seem part of a growing reef structure. Resident clownfish flitted around this highly explosive payload.

Tyres were scattered throughout the holds as well as on deck. Communities of hard-shelled molluscs had found few footholds on the smooth black rubber, and instead resided in small clumps around the tread areas.

The Turkia has been hailed by some as the "new Thistlegorm". I'm not convinced; the much-dived and muchloved wreck 70-odd miles south is just too good a site to relinquish its crown just yet. However, the consensus was that our Turkia dives were worth every minute of the long and uncomfortable journey.

OUR WRECK TOUR had started with a shallow check-out dive on the remains of the El Mina (Harbour Wreck) just out of the port at Hurghada. This Soviet-built Type 43 minesweeper lies at a maximum depth of 30m and was sent to her watery grave by Israeli fighter planes in 1969.

The stern is twisted to port, the decking facing the seabed. The mine-sweeping sonar gear and winches are still in place, as is the anchor-chain that snakes across the seabed.

But our next stop was at Abu Nuhas to

dive what I consider the most graceful of wrecks in Egyptian waters, the passenger ship ss Carnatic. Built in the UK's Isle of Dogs by the Samuda Brothers in 1862, she was fitted with primitive inverted tandem compound engines, although her 12-knot maximum speed was generated

Sha'ab Abu Nuhas, breaking her back and sliding under water on the morning of 14 September, 1869.

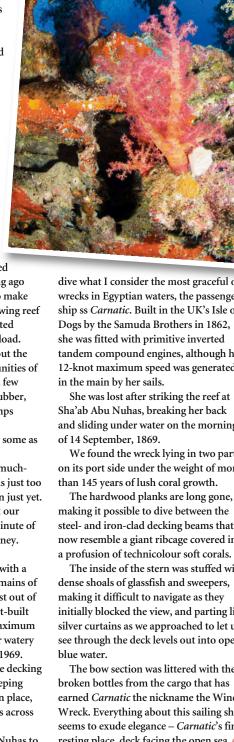
We found the wreck lying in two parts on its port side under the weight of more

making it possible to dive between the steel- and iron-clad decking beams that now resemble a giant ribcage covered in a profusion of technicolour soft corals.

The inside of the stern was stuffed with dense shoals of glassfish and sweepers, making it difficult to navigate as they initially blocked the view, and parting like silver curtains as we approached to let us see through the deck levels out into open

The bow section was littered with the broken bottles from the cargo that has earned Carnatic the nickname the Wine Wreck. Everything about this sailing ship seems to exude elegance - Carnatic's final resting place, deck facing the open sea







Right, from left: The lathe in the tool-room of the Tile Wreck; pillar drill in the same room; the propeller.

Below: A diver checks out the Rosalie Moller's crow's



and keel in the shadow of the reef, allows the wreck to be bathed in varying light.

I have dived here in the past, and it's noticeable that the wreck's appearance seems to change with the time of day and position of the sun. For a self-confessed reef-nut like me this dive-site provides the best of both worlds, with the magnificent coral growth and marine life adorning the remains of a ship of the highest calibre.

The shallow reef at Sha'ab Abu Nuhas sits close to busy shipping lanes and has been the downfall of a number of other vessels over the years.



One such was the Ghiannis D. Carrying lumber bound for Saudi Arabia, she had sailed through the Gulf of Suez heading for the Straits of Gubal before striking the reef on 19 April, 1983 and sinking.

The wreck lies at an angle on the seabed, and its profile is possibly the most photographed in the Red Sea. The rusting hull is covered in marine and coral growth, providing a texture that seems to soften its appearance.

The large funnel still bears the letter D, so there could be no misunderstanding as to the name of the wreck we were visiting.

THE SAME CANNOT be said of the next wreck on our itinerary, widely known as the Tile Wreck and still giving rise to disagreement. Modern-day historians and wreck-researchers believe the wreck to be that of the Marcus, built as the Atlas Bremen in 1959, but for years the Tile Wreck was thought to be the Chrisoula K.

Chrisoula K, by coincidence, struck the same reef three years after the Marcus a similar ship with a similar cargo on a similar journey. The broken-off bow of the Chrisoula K sitting on top of the reef next to the Tile Wreck simply adds to the uncertainty.

The argument over this wreck's identity will no doubt rage on, but it adds interest to the post-dive debate. Whatever the name it offers a fantastic dive.

Light passes through the perforated hull-plates, creating a series of beams that illuminate the stacks of good-quality granite tiles that are piled high but have shifted, allowing room to swim through.

The ship's workshop still has its lathe and drill press, abandoned and rusting but clearly identifiable, sitting exactly as they were when the ship was wrecked.

On our way south from the Turkia we stopped off at the site of the Rosalie Moller. Another WW2 casualty, bombed at anchor like the Thistlegorm, it's likely that she was spotted after being lit up by the fire that followed the Thistlegorm attack. The Heinkels returned two days later to bomb her.

Built in Glasgow by Barclay Curle & Co, Rosalie Moller was launched as the Francis in January 1910 and went into service with the Booth Shipping Line.

She was renamed after her sale in 1931



to the Lancashire-based Moller line. When she was sunk in the early hours of 8 October, 1941, she was carrying a cargo of Welsh coal.

The remains lie upright on a sandy seabed at a maximum 53m with the deck at around 30m, the two masts still intact and rising to within 17m of the surface.

The base of the forward mast was under siege from a dense shoal of glassfish and sweepers, shimmering in the midday sun and reducing our view of the rusting metal structure. Beautiful purple, pink, red and white soft corals grew along the length of the mast, culminating in a small garden of corals at the crow's nest.

More glassfish hugged the contours, ready to dart for cover in unison as everpresent predators came hunting.

THE ROSALIE MOLLER proved to be another wreck offering this reef-nut a welcome respite from searching rusty nooks and crannies while trying to make sense of the jumbled, twisted and decaying remains of once-proud and sophisticated sea-going vessels.

The Red Sea has a wealth of wrecks for all to enjoy, from shallow remains to the deep and dark skeletons that only those with technical skills and equipment should visit.

We had travelled to the far north of the Gulf of Suez and back again, endured rough seas and explored a total of 15 wrecks in just a week of intense diving. We were exhausted, but our lust for rust had been well and truly satisfied.

* The Scuba Place offers the seven-day **Totally Wrecked itinerary, visiting 15** wrecks - others dived include the Al Bahr, Ulysses, Aboudy, Birchwood, Laura Security and Thistleaorm. The package includes flights, transfers, up to four dives per day and free nitrox for qualified divers on King Marcos II, and prices start from £1099. Group discounts are available, www.thescubaplace.co.uk



SHIP becials! WWW.THESCUBAPLACE.CO.UK

ST LUCIA

4* all-inclusive hotel, flights, transfers and diving 7 nights, with 10 dives, from £1379pp - SAVE £350!! 14 nights, with 20 dives, from £1959pp - SAVE £500!!

CUBA

The ULTIMATE shark diving paradise.

9 night trip from £2399pp -

6 nights on board your liveaboard and 2 nights in Havana!

RED SEA

15 wrecks in 6 days - from £1099pp -

Roots Red Sea, El Quseir
7 nights soft all-inclusive accommodation, and 6 days unlimited diving from £929pp -

7 nights all-inclusive accommodation with 5 days diving from £699pp - SAVE £150! AND get 6th day's diving FREE!

SOUTH AFRICA

Sardine Conglomeration (April 2015)

7 nights B&B and unlimited diving/snorkelling with the big AVE £200!! - last few spaces! stuff! From £2899pp

PHILIPPINES

7 nights Malapascua followed by 7 nights Dumaguette custom built trips from £2399pp -

And a massive choice of other destinations including Mexico, Grenada, Barbados, Cayman Islands, Oman, Maldives and many more.





Telephone 0207 644 8252



Where diving dreams are delivered

reservations@thescubaplace.co.uk

SOWHOISTHE UNDERWATER PHOTOGRAPHER OF THE YEAR? It was the big no photo competition.

UPY

It was the big new British-based photo competition of the year – and here is the happy outcome

N THESE AND THE FOLLOWING pages, DIVER brings you some of the winning images from Underwater Photographer of the Year (UPY). This is the first instalment of this new competition that brings a world-leading underwater photography contest back to the UK, 50 years after the original Brighton Festival was launched by DIVER magazine's founder Bernard Eaton.

Three esteemed judges, Alex Mustard, Martin Edge and Peter Rowlands, had the pleasure of going through 2500 entries to select the award-winners. "It was highly enjoyable, but something we took very seriously," said Mustard, chair of the judging panel and the driving force behind UPY. "Every judge saw every picture multiple times — we probably know some of the images better than the photographers who took them.

"The quantity and particularly the quality of the images entered left us all astounded. It was a privilege to be part of something so special, heart-warming to see the competition so enthusiastically embraced by the community, and heartbreaking at times when we just couldn't squeeze some truly amazing images into the winners' circle."

"I'm really excited to be presenting the images and the prizes on stage at LIDS, where we'll also have a display of super-sized prints," added Mustard, talking before the London International Dive Show, held at ExCeL, where the prize-giving was set for 14 February. "But I'm most looking forward to the feedback session afterwards, where we will pass on our comments, positive and negative, to any entrants who come along.

"With all the PhotoZone talks running on both days, I hope LIDS will now become *the* mustattend gathering for underwater photographers in Britain and beyond."

THE TITLE OF UNDERWATER PHOTOGRAPHER

of the Year goes to Portuguese photographer Nuno Sá, for his exquisitely lit close-up image of a short-snouted seahorse, taken in the Algarve.

Sá was documenting a seahorse-breeding programme for National Geographic and achieved the beautiful lighting with help from two of the seahorse scientists holding his flashes. He hopes the success of his photo will highlight the plight of



DIVER 38 WWW.DIVERNET.COM

seahorses and the value of captive breeding.

UPY revived two long-standing titles from the days of the Brighton Festival: the British Underwater Photographer of the Year and the Most Promising British Underwater Photographer 2015, awarded for the best photos by UK-based photographers or British nationals, wherever they live in the world.

Peter Rowlands delighted in reminding the other judges – regularly – that he is a former British Underwater Photographer of the Year!

Marine biologist and underwater wildlife photographer Matt Doggett from Southampton wins the title of British Underwater Photographer of the Year for his action-packed photo of gannets feeding in the Shetland Islands. Peter Rowlands described it as "quite literally, breath-taking".

MARIO VITALINI FROM SURREY

wins Most Promising British Underwater Photographer 2015, which is awarded to a rising star who has yet to register any major competition success.

Mario's creative image employed backlighting to make a goby seem to glow against the dark sponge.

In addition to these three special awards, the competition was divided into eight categories, testing photographers' skills in macro, wide angle, wrecks and behaviour.

There were categories for UK waters and overseas, one for up-and-coming photographers who have yet to be published or won contests, and even a category for images taken with compact cameras in British waters.



The best photographers collect high-quality prizes from some of the industry's best-known brands: Scuba Travel, Nauticam, Apeks and Fourth Element. Their support of this new venture was fundamental to its successful start, said Alex Mustard.

The UPY winners' circle includes professionals with international reputations, well-known

competition specialists and a host of new names who clearly have a very bright future.

UPY was a truly international affair and not simply dominated by photographers from southern Europe and the USA. It had winners from places as diverse as Bahrain, Kazakhstan and the Philippines, demonstrating how global underwater photography has become.

"I was particularly pleased to see female photographers doing so well in UPY," added Mustard. "Photography is definitely a discipline in which the sexes can compete side by side, and everyone knows that women make the best divers!

"We had 14 different female photographers among our winning and commended entries, and in my favourite category of Behaviour, it was a clean sweep of the podium for the ladies, with Montse Grillo, Tammy Gibbs and Cathy Lewis."

British photographers were well represented, with Trevor Rees and Matt Doggett carving up the spoils in the British Waters categories, Charles Hood and Cathy Lewis both scoring podiums in the International categories, and Polly

'I WAS PLEASED TO SEE FEMALE PHOTOGRAPHERS DOING SO WELL'



Whyte, Arthur Kingdon and Steve Jones featuring with multiple images.

"Warren Williams at 79 was our oldest winner," added Mustard.
"That resonates with me, as I have a copy of *Triton* (DIVER's predecessor) from the month of my birth, and Williams is dominating the competition results in that issue.

"The UK has a rich history of underwater photography from William Thompson to Peter Scoones. Even James Bond took photos with a Nikonos! I feel that UPY has definitely recaptured the spirit of the Brighton Festival," concluded Mustard. "It has brought a world-class festival of underwater photography back to Britain.

"I'm already excited to find out who will be winners in Underwater Photographer of the Year 2016. Watch this space!"

CATEGORY 1: INTERNATIONAL WIDE ANGLE For wide-angle underwater photos taken anywhere in the world



Winner: RAFFAELE LIVORNESE (Italy)

From Below (North Ari Atoll, Maldives)

Photographer's comments:

"I took this photo below the dive-boat during a safari in the Maldives last October. The only light source was from a spotlight on the liveaboard.

"In the water, I waited 40 minutes to get this shot. The manta made many pirouettes as it fed on the plankton attracted to the light. It was always too far from the surface and I was using a



snorkel, but once I saw the photo on my camera I was very happy."

Technical: Nikon D90, 10-17mm. Ikelite housing, Inon Z240 strobes. 1/250th @ f/8, ISO 200.

Judge's comments (Alex Mustard): "Mantas are among the most beautiful creatures in the ocean, and such graphically powerful images are a rare treat in wide-angle photography.

"The single light source from above the surface reveals the 3D form of the ray – I especially like how the light and dark define the gill-slits. The shot is precisely timed, capturing perfect symmetry in the subject. It works so well in monochrome and in every way."



Runner-Up: HANI BADER (Bahrain)

Socotra Cormorant (West Coast, Bahrain)

Photographer's comments:

"I was diving to shoot a jellyfish, as they arrive in huge quantities between May and July. I find them inspiring subjects, especially seeing so many swimming rhythmically on all sides. This picture came together when I saw some Socotra cormorants diving to eat the small fish hiding beneath the jellyfish. It was difficult to shoot, as the birds move so fast."

Technical: Nikon D7000, 10.5mm, Sea & Sea housing, Sea & Sea YS250 strobes. 1/60th @f/11. ISO 100.

Judge's comments (Martin Edge): "Engaging behaviour with competent use of all the elements. Notice how the subject is surrounded by the jellyfish and within Snell's window, but the entire form including feet and wings is visible.

"Nothing blocks the eye of the viewer but in all four corners there's plenty going on! Skilled technical control of the highlights through 'Snell', combined with a balanced control of the jellyfish in all four corners - again, stellar peak of the action."

Highly Commended: Julian Cohen (Singapore), Matthew Smith (Australia), Joao Paulo Krajewski (Brazil), Allison Vitsky Sallmon (USA).

Commended: Gregory Sherman (USA), Fabrice Guerin (France), Elaine White (UK)

Third: MORTEN BJØRN LARSEN (Denmark)

Bottoms Up! (Aarhus Swim Stadium, Denmark)

Photographer's comments:

"I was official underwater photographer at the 2009 Freediving World Championships in Denmark. On the final day after the last competition, I invited all the 175 athletes outside in the deep pool to try to create some photos.

"My idea was to get them all to dive down directly towards me, but after a



few attempts I looked up and saw this funny and unusual gathering at the surface."

Technical: Nikon D200, 10-17mm, Sea & Sea housing, Sea & Sea YS110 strobes. 1/250th @f/6.3. ISO 100.

Judge's comments (Peter Rowlands): "In every photography competition there is usually one unique image that stands out from the crowd, and this is it.

"In truth, the initially positive effect of such an eye-catching image can often fade when viewed more. This shot, however, keeps growing."

WWW.DIVERNET.COM 40

CATEGORY 2: INTERNATIONAL MACRO For macro and close-up underwater photos taken anywhere in the world

Winner & Underwater Photographer of the Year: NUNO SÁ (Portugal)

50 Tons Of Me (Algarve, Portugal)

Photographer's comments:

"The natural reserve of Ria Formosa is home to the world's largest population of the two species of seahorses found in the Mediterranean and Atlantic. However, the local university together with Project Seahorse has registered an 85% decline in seahorse populations between 2001 and 2009.

"I spent 10 days diving in this natural reserve for National Geographic Portugal, following a pioneering project between the University of Algarve with Project Seahorse, which is breeding seahorses in captivity.

"The goal is to reduce the demand for wild seahorses and also to repopulate areas where seahorses populations have been reduced or made extinct by fishing. More than 50 tonnes of seahorses are

captured every year for ornamental purposes and use in traditional oriental medicine.

"To light this photo, I had unusual accessories - two scientists, who were holding my strobes, one behind and one above the seahorse."

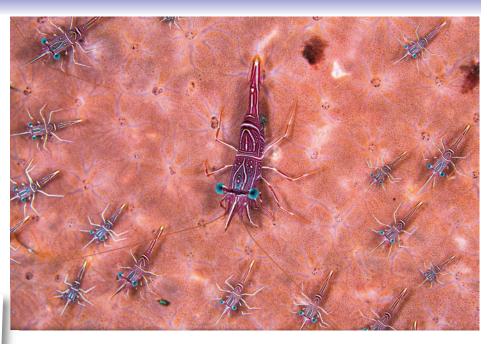


Technical: Canon EOS 5D,

100mm. Aquatica housing, Ikelite

DS125 strobes. 1/200th @ f/13, ISO 50.

Judge's comments (Martin Edge): "In the opinion of the judges, the best in show! The composition is simple but so effective. What attracts me to this particular image is quality of light and shade made possible by the subtle use of flash. It's as though it's lit from within. It's also a fine example of what I refer to as delicate post-processing."



Runner-Up: THERESA GUISE (USA)

Dancing Shrimp In Formation (Anilao, Philippines)

Photographer's comments:

"The image was taken on a dive-site mooring, a large concrete block covered in pink sponge. Closer inspection showed an abundance of dancing shrimp. They formed interesting patterns and formations, such as the one in this image.



"Their red bodies and turquoise eyes were a striking contrast to the pink sponge, but complemented it, as if arranged by an interior designer."

Technical: Canon EOS 5D Mk3, 100mm. Nauticam housing, Inon Z240 strobes. 1/250th @ f/13, ISO 200.

Judge's comments (Martin Edge): "Who says you need rare and exotic creatures to make great underwater images? One of the most common shrimps throughout the world - it's a typical subject, which we practice on for our first macro dive of the day! Who would think it could excel in such a big competition?

"So incredibly simple but shot by a photographer with an eye for impact, balance and originality — I do so wish I had taken this shot!"

Highly Commended: Marcello Di Francesco (Italy), François Parot (France), Jeffrey de Guzman (Philippines), Pash Baker (UK)

Commended: Tobias Friedrich (Germany), Lynn Wu (Taiwan), Adriano Morettin (Italy)



Third: FILIPPO BORGHI (Italy)

The Passenger (Lembeh, Indonesia)

Photographer's comments:

"I was making a sunset dive with the intention of photographing mandarinfish mating when I spotted this beautiful solar-powered nudibranch.

"I was already busy photographing it when from between its horns this tiny emperor shrimp appeared. Perhaps it was more confident in the fading light?"



Technical: Nikon D800e, 105mm. Subal housing, Ikelite DS160 strobes. 1/250th @ f/16, ISO 100.

Judge's comments (Peter Rowlands): "This remarkable image gets better and better the larger you view it. With macro it's often tempting to go in close for maximum detail and scale, but in this case the symmetry of the main host enhanced by the dominant oral tentacles and the extremely delicate lighting has produced an image that perfectly captures the relationship between these two beautiful creatures."

CATEGORY 3: INTERNATIONAL WRECKS For wide-angle and macro photos taken on wrecks (which can be the main subject or the setting)



Runner-Up: CHARLES HOOD (UK)

Exploring the *Kittiwake* (Grand Cayman)

Highly Commended: Mario Vitalini (UK), Terry Steeley (UK), Arthur Kingdom (UK), Steve Jones (UK)

Commended: Csaba Tokolyi (Hungary), Nadya Kulagina (Kazakhstan), Trevor Rees (UK)



Photographer's comments:

"I was asked to cover the sinking of the *Kittiwake* for a diving magazine, with the editor stating that he wanted some shots other than standard wreck images.

"Building on an idea used by cave-diving photographers, I took four strobes, all wired back to the camera housing with a home-made cable, and tried different angles.

"The mask reflection, which usually isn't wanted, was a fluke, but I think it adds to the image."

Technical: Nikon D3, 16mm. Aquatica housing, Sea & Sea YS110 strobes. 1/60th @ f/8, ISO 400.

Judge's comments (Peter Rowlands):

"As someone keen on wreck photography I particularly like this very strong image with dramatic lighting and the 'icing on the cake' reflections in the mask.

"It has instant appeal, with plenty of detail to keep the eye entertained. The delivery is graphically simple and leaves you in no doubt visually."



Winner: TOBIAS FRIEDRICH (Germany)

Eelastic (*Chrisoula K*, Egypt)

Photographer's comments:

"Sometimes encounters just happen that couldn't have been planned better, and never could be repeated. For me this was one, which took place inside of the wreck of the *Chrisoula K*.

"I was quite shocked initially, but after a few moments I recognised that this could be a fantastic opportunity. So I swam after the moray eel and

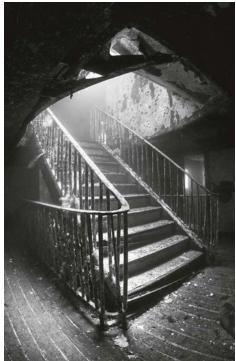
capturing this brief encounter."

photographed it above the Tile Wreck's characteristic cargo. "Fortunately the flash was on TTL, a decisive advantage in

Technical: Canon EOS 5D Mk2, 8-15mm. Seacam housing, Seacam 150D strobes. 1/60th @ f/8, ISO 800.

Judge's comments (Peter Rowlands): I can really feel the excitement that must have been building in the photographer who took this shot. More often than not, marine life doesn't behave on cue but this moray must have delighted the shooter as it emerged from the inside of the wreck to pose perfectly for both photographers.

"The decisive moment has been captured to sublime effect."



Third: TOBIAS FRIEDRICH (Germany)

The Stairs (Karwela wreck, Gozo, Malta)

Photographer's comments:

"Interesting structures, stairs and the large engine-room make the Karwela wreck particularly interesting. Sometimes a big lobster is hiding between the large propellers of the ship."

Technical: Canon 300D, 10-17mm. UK-Germany housing, no strobes. 1/50th @ f/8, ISO 400.

Judge's comments (Alex Mustard): "One of the great attractions of wreck dives is their atmosphere, which is something this image has in bucketfuls. I love how it takes a few moments to even spot that it's an underwater photograph. A real grower."





The Diving Holiday Specialists since 1988

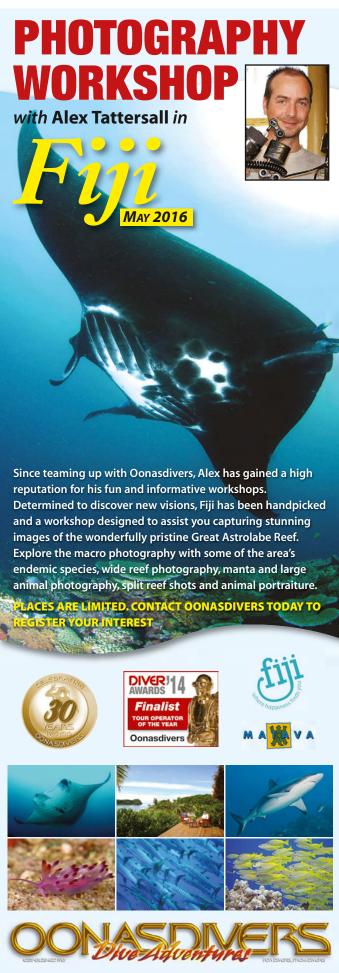
01353 659999 www.regaldive.co.uk





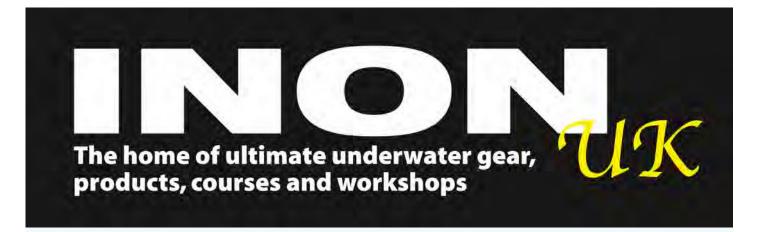












FOR THE BEST IN UNDERWATER PHOTOGRAPHY EQUIPMENT, TRAINING AND ADVICE.

Visit our website for details of exclusive INON UK strobe seminars. Learn with Lisa underwater photography improvement classes.

Send us an email through our contact page mentioning INONCOMP in subject for your chance to **win an INON LE350 series light** (closing date 31/3/15)

www.inonuk.com





CATEGORY 4: INTERNATIONAL BEHAVIOUR For underwater photos of natural marine life behaviour, taken anywhere in the world

Winner: MONTSE GRILLO (Spain)

Survival (Tenerife, Canary Islands)

Photographer's comments:

"It was a seemingly calm day, with nothing special happening, like many other times I've been out on the boat with friends. Then suddenly, in the distance, we spotted many birds diving into the water. And we went to see the show, five miles off the coast.

"The sardines were trying to escape the birds and dolphins, but without success. In a few minutes this fish-ball had vanished, but for me memories of those moments are indelible."

Technical: Canon EOS 7D, 8-15mm. Subal housing, Subtronic 270 strobes. 1/100th @ f/14, ISO 250.

Judge's comments (Peter Rowlands): "A particularly visual favourite of mine that also captures the category's purpose to perfection — behaviour. It freezes the very essence of life under water with great lighting and perfect composition, right down to the bit-part players in the background preparing to circle again to have another lunge into the unfortunate shoal."



Runner-Up: TAMMY GIBBS (Australia)

Goodbye and Good Luck (Western Australia)

Photographer's comments:

"After watching the ever-expanding pouches of the brooding males, I was determined to see one give birth, something that happens under the cover of darkness.

"I dived again and again until, on this particular night, I found three males that looked very ready to give birth. This one was the first to have his

babies, and I watched in awe as hundreds of tiny seahorses were thrust from his pouch."

Third: CATHY LEWIS (UK)

Valet Service (Bali, Indonesia)

Photographer's comments:

"We spent a lot of time shore diving a busy cleaning station at around 23m, where this emperor angelfish was a frequent visitor. I wanted to use it as a colourful, graphic canvas

on which to capture the cleaning behaviour of the Lysmata shrimp." **Technical:** Nikon D200, 105mm. Sea & Sea housing, Sea & Sea 110 strobes. 11/100th @ f/14, ISO 200.

Judge's comments (Martin Edge): "This image was a strong favourite with all the judges. It has a wonderful sense, not only abstract and art but of behaviour also.

"Excellent peak of the action, with the subject occupying the dark tones of the fish. The balance of the composition and general weight of the shot I find outstanding."



Judge's comments (Peter Rowlands): "One of my own favourites from the entire competition! The birthing behaviour in itself is technically first class but what impresses me most is the sense of emotion between father and babies. Just

look at the eye contact! A fine example of exceptional peak of the action!

"Imagine the eye contact being directed anywhere else

within the frame. That parental connection would've been lost."

Highly Commended:

Olivier Delorieux (France), Lawrence Alex Wu (Canada), Pekka Tuuri (Finland), Andy Murch (Canada)

Commended: Jeffrey de Guzman (Philippines), Mark Fuller (Israel), Andy Deitsch (USA)





CATEGORY 5: UP AND COMING WORLDWIDE For any type of underwater photos taken by unpublished photographers who have yet to win a major award for their images. Photos can be taken anywhere in the world.

Winner: FABRICE GUERIN (France)

Angelita (Yucatan, Mexico)

Photographer's comments:



"In the middle of Mexico's Yucatan Peninsula there is a very special natural cave

called *cenote* Angelita. It is a unique diving experience, with the light going from blue to green.

"Then, at a depth of 30m, a metre-thick layer of hydrogen sulphide appears. The atmosphere is similar to that of a lunar landscape. When I spotted this diver between the branches of a tree, I had all the elements for a surreal underwater image."

Technical: Canon 5D Mk3, 20mm. Aquatica housing, Inon Z240 strobes. 1/250th, f/5,6, ISO 2500.

Judge's comments (Martin Edge): "Such a unique image! So different to anything else in the competition. It's particularly atmospheric, and the understated use of post-processing has provided a soft, surreal, dream-like photo.

"The composition is subtle and effective, with the peak of the action capturing the diver between the dominant foreground.

"I love this shot and it's fair to say that it was one of my favourites of the competition."



Third & Most Promising British Underwater Photographer of the Year: MARIO VITALINI (UK)

Glowing Goby (Lembeh, Sulawesi, Indonesia)

Photographer's comments:

"I love backlighting for the contrast it brings and I really like the translucent effect it has on many subjects.

"Even with all the other critters in Lembeh, I couldn't resist this ordinary goby and had a bit of a competition with my dive-buddy to get a backlit shot."



Technical: Olympus OMD-EM5, 60mm. Nauticam housing, Sea & Sea D1 strobes. 1/250th @ f/16, ISO 400.

Judge's comments (Peter Rowlands): "Here is a perfect example of how to light a subject to great effect, but backlighting can introduce problems of its own and enhance any backscatter.

"The lovely contrast between the rich black background and the translucent body of the fish combined with a powerful diagonal composition make this a very effective image."



Highly Commended: Ken Kiefer II (USA), John Parker (UK), Duncan Robbins (UK), Gary Peart (UK)

Commended: Juha Paunisaari (Finland), Ken Kiefer II (USA), Michael Weberberger (Austria)



Runner-Up: TOMMI KOKKOLA (Finland)

Fast Oceanic (Brothers Islands, Egypt)

Photographer's comments:

"I was on a liveaboard full of photographers and one of our targets was to shoot oceanic whitetip sharks. The sharks were around and we had many opportunities to shoot them.

"By our final dive at the Brothers I was happy with my shots, so decided to experiment with slow shutter speeds. I got only one chance, but it worked out just fine."



Technical: Canon 5D Mk3, 8-15mm 1.4x teleconverter. Seacam housing, Inon Z240 strobes. 1/13th, f/8, ISO 320.

Judge's comments (Alex Mustard): "Sharks are dramatic subjects, made more so when combined with techniques such as long exposure and panning. Not that it's easy to think about using a creative technique when faced by such an exciting subject.

"Being able to think under water and under pressure is the mark of an excellent photographer."

CATEGORY 6: BRITISH WATERS WIDE ANGLE For wide-angle photos taken in British seas and fresh water (not including pools, aquariums etc)

Winner & British Underwater Photographer of the Year: MATT DOGGETT (UK)

Gannets' Feast (Shetland Islands, UK)

Photographer's comments:

"With my good friend Richard Shucksmith, I hatched the plan of trying to photograph gannets diving under water. It was early in the season and their main food source, mackerel, was close inshore.

"To attract them close enough to my lens, we threw in some dead mackerel from a local supplier, commonly done on birding trips to get diving photos above the surface.

"The gannets went crazy and we were surrounded in minutes. They hit the water at 50-60mph so I had to be fast. I was shooting from the hip and rarely looked through the viewfinder. Sometimes the gannets were right on the front of the lens! It was amazing.

You could hear them hitting the surface one after another.

"This shot shows three birds just as the race to reach the fish was over. The lucky bird with the fish would have swallowed it while still under water to avoid being harassed by hungry skuas waiting at the surface."

Technical: Canon EOS 5D MkII, 17-40mm. Ikelite housing, Inon Z240 strobes. 1/250th @ f/8, ISO 200.

Judge's comments (Peter Rowlands): "There are some images that are, quite literally, breath-taking, and this is up there with the best. Timed to perfection and precisely focused, it captures the peak of the action, which must have been extremely frantic. I think I'd have worn a crash helmet with such fast-moving and sharp beaks plunging down so fast! Stunning."







Runner-Up: TREVOR REES (UK)

Pike, The Lurking Predator (Stoney Cove, Leics)

Photographer's comments:

"I tend to dive a fair bit in UK quarries in the winter, and never tire of trying to get a better shot of pike. They are impressively large fish and I think of them as a mean and moody freshwater barracuda.

"Pike are not difficult to find but the patience to approach them only very slowly is a real challenge. A fisheye lens

coupled with a teleconverter (to avoid excessive barrel distortion with bent light rays) has given me the natural perspective I wanted."

Technical: Nikon D600, 15mm and 1.5x teleconverter. Sea & Sea housing, Sea & Sea YS110 strobes. 1/50th @ f/10, ISO 1000.

Judge's comments (Martin Edge): "You see many freshwater-fish images, but this pike study is a cut above the rest. Subtle use of flash technique on the pike with strong eye contact, not to mention the clever balance of the composition and in particular the reeds in the background.

"All we need now is exceptional light and it's as though someone has just pulled a switch! There it is! Outstanding use of shallow-water light, which dapples the top of the pike."

Highly Commended: Charles Hood (UK), Richard Shucksmith (UK), Adam Hanlon (UK), Trevor Rees (UK)

Commended: Charles Hood (UK), Paul Colley (UK), Richard Shucksmith (UK)



Third: STEVE JONES (UK)

Tunnel Vision (NDAC, Chepstow)

Photographer's comments:

"This image was taken during prelaunch trials of the Orcalight, the most powerful battery-powered LED divelamp in the world. The diver pictured is BBC NHU cameraman Doug Anderson.

"We positioned one lamp to the right to light Doug and the forward area of the inside hull, while Doug held the second light, pointing behind him

to light the rear of the hull. The use of rebreathers helped greatly, avoiding any annoying bubbles disturbing the silt on the ceiling."

Technical: Nikon D4, 16mm. Seacam housing, Orcalight SeaWolf 2260 lamps. 1/60th @ f/8, ISO 3200.

Judge's comments (Alex Mustard): "It is great to see such a variety of underwater photography styles, subjects and techniques in the competition. This photo uses off-camera lighting to create depth in the image, a feature enhanced by the composition, with the lines of the fuselage drawing your eye through the image to the diver."



Winner: TREVOR REES (UK)

The Amphipod Has Landed (Loch Carron, Scotland)

Photographer's comments:

"This amphipod (*Iphimedia obesa*) was a subject I had not photographed before, or really been aware of.
Conditions were such that the water at the time was alive with them – like little fleas darting all over the reef.



"I settled down with a macro lens fitted with a dry diopter and just kept searching until I found a co-operative

individual. I aimed for a low-angle, side-on composition at the maximum magnification that minimum focus would allow.

"As with many tiny creatures, most divers are probably unaware of their beauty and amazing colours, so a photo is particularly valued."

Technical: Nikon D600, 105mm, Sea & Sea housing, Sea & Sea YS110 strobe with snoot. 1/2500th @ f/32, ISO 400.

Judge's comments (Peter Rowlands): "In some categories there is sometimes a shot that is head and shoulders ahead of the others, and this is it. Graphically simple, perfectly composed, with pin-sharp focus and beautifully lit, it has a delicacy that is both beautiful and strange in equal measure."





Highly Commended: Ally McDowell (UK), Jane Morgan (UK), Alex Tattersall (UK), Matt Doggett (UK)

Commended: Trevor Rees (UK), Cathy Lewis (UK), Steve Jones (UK)

Runner-Up: MATT DOGGETT (UK)

Peekaboo Puffin (North Rona, Scotland)

Photographer's comments:

"Using Richard Shucksmith's beautifully fashioned homemade puffins attached to our heads as a disguise, we could approach close enough to photograph the birds from an underwater perspective.

"Although guillemots buzzed right up to us almost immediately, the puffins remained shy, taking a long

time before swimming close to us under water. This one looked particularly cheeky as it checked me out for what I really was!"

Technical: Canon 5D Mk2, 100mm. Ikelite housing, Inon Z240 strobes. 1/320th @ f/6.3, ISO 500.

Judge's comments (Alex Mustard): "Photographing puffins under water is very challenging, and doing so in British conditions is even tougher, yet this is a powerful portrait that tells us about the conflicting emotions of curiosity and nervousness in this engaging subject."

Third: ARTHUR KINGDON (UK)

Northern Prawn (St Abbs, Scotland)

Photographer's comments:

"This northern prawn was in a crack in the rocks a couple of feet above the seabed. This allowed me to shoot from below. I have always been fascinated by the eyes of these creatures, so I opened up the aperture and concentrated on focusing just on the eyes. This gave a different image to the usual macro shot where maximum depth of field is aimed for."



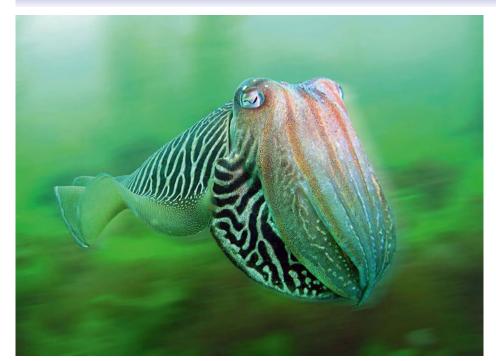
Technical: Nikon D7000, 60mm. Aquatica housing, Inon Z240 strobes. 1/320th @ f5.6, ISO 200.

Judge's comments (Alex Mustard): "I am always impressed by images where the photographer transforms an everyday subject into an image of eye-catching

beauty. The pinpoint focus, depth of field and particularly the control on lighting make this a very impressive portrait."

DIVER 48) WWW.DIVERNET.COM

CATEGORY 8: BRITISH WATERS COMPACT For any underwater photos taken in British seas and fresh water (not including pools, aquariums etc) with compact cameras.



Winner: TREVOR REES (UK)

Cuttlefish In A Blur (Babbacombe, Devon)

Photographer's comments:

"The location is a well-known spot where cuttlefish come into the shallows from late spring to early summer to breed and lay their eggs.

"To add a different look I used a zoom blur filter in Photoshop to give the effect of movement, which I felt complemented their tendency often to shoot off backwards at great speed if



alarmed. It was a pleasing capture from a simple 4MP compact

Technical: Canon A80, Inon 105 wet lens, Canon housing, single Sea & Sea YS90 strobe. F5.6 @ 1/50sec. ISO 100

Judge's comments (Alex Mustard): "A fantastic portrait of one of the wonders of British seas. This is an image that succeeds not because of a rare species – most divers in the south of England will regularly see cuttlefish – but because of excellent technique, both in the water and in processing the image to produce a stunning result."





Highly Commended: Warren Williams (UK), Polly Whyte (UK) Polly Whyte

Polly Whyte (UK), Polly Whyte (UK), Polly Whyte (UK)

Commended: Tim Caddy (UK), Andrew Pearson (UK), Polly Whyte (UK)

Third: PAUL COLLEY (UK) Sharp Shrimp (Chesil Beach, Dorset)

Photographer's comments:

"This was taken during an on-the-day splash-in competition when weather conditions were bad, so I sought out a sheltered bay to the east of Chesil Beach for a better chance of success. In only 2m of water, a group of blennies and shrimps were fighting over tiny scraps of flesh in the remains of a cockleshell.



"Getting an in-focus and well-composed image with a compact as the skittish animals moved around was quite a challenge."

Technical: Olympus XZ-2, +10 dioptre. Olympus housing, single Inon Z240 strobe. 1/160th @ f/5.6, ISO 100.

Judge's comments (Alex Mustard): "This is a fantastic demonstration of what can be done with a compact, and that it's the photographer and not the camera that makes the image.

'The eye is so sharply in focus you could cut yourself on it. And the photographer handled the background with aplomb, which can be a real challenge with compact cameras in British seas."

Runner-Up: POLLY WHYTE (UK)

Hermit Crabs Hanging Out (Loch Carron, Scotland)

Photographer's comments:

"It's fair to say that I'm a little bit obsessed with hermit crabs. I think they're funny little critters, often walking around with bits of seaweed and other marine life stuck to them.

"This pair caught my eye during a week spent doing shore dives on the west coast of Scotland in November last year."

Technical: Canon S100, Inon 165 wet lens, Canon housing, single Inon Z240 strobe. 1/80th @ f/5.9. ISO 200.

Judge's comments (Martin Edge): "Yet another common subject, but the double-up

and size ratio to each other balance the frame particularly well. The black background is effective to eliminate visual clutter, and the precise positioning of the centre of interest, 'the two pairs of eyes', is compositionally very strong."

Compact Ports For Compact Systems





COMPACT SYSTEM HOUSINGS AVAILABLE FOR:

- CANON EOS 100D
- OLYMPUS OM-D E-M10
- OLYMPUS PEN E-PL7
- PANASONIC LUMIX GX7
- BLACKMAGIC POCKET CINEMA

Cameras Camera



'WE AS DIVERS HAVE NO EULOGY'

this month's column on too grim a note, it is said that there are only two certainties in life – tax, and death.

The former is certainly part of our everyday existence here in Britain, one that – may I say – is the bedrock of any civilised society. It's an extension of the hunter-gatherer community ethos, which means that everyone contributes for the welfare of all.

Well, nearly everyone. And on that note, I shall stop talking about tax, otherwise this will turn into a very strange – and possibly quite sweary – diving column.

The other factor that looms large over all of us is death. You can never beat it, of course, but modern medicine means that you can certainly take it to a thrilling fifth-set tie-breaker.

One in three children born in our society today will live to be 100, which is

a fairly amazing statistic. I fear that I shall be shuffling off the perch well before that, and can already imagine myself as the most appalling old man. Smelly, deaf, and grumpy — I mean, if I'm like that now, what will I be like in 30 years' time?

That, incidentally, is one of the joys of our sport. Diving doesn't really have age limits, and with the rapid advances in diving technology kit becomes ever lighter, and we understand the effects of pressure on our bodies more and more.

Who is to say that soon octogenarians / nonagenarians / centurions and beyond won't be regulars on the club-boat?

The weightlessness of water, the comfort of its embrace, the lifting of the heavy veil of gravity from tired limbs, aching joints and brittle bones – surely the relief, the escape, would be blessed.

And of course, that doesn't just apply to the elderly. We all dive to escape, and



© HIPPRODUCTIONS | DREAMSTIME.COM

for some it is the only place where they truly feel at peace.

There are simple, logical arguments for this – no mobiles, no bank manager, no work, no diary, just a simple set of decisions based on the here and now to get you through the dive while savouring the environment that surrounds you.

And it is perhaps that latter point that raises the possibility of a deeper reason for feelings of such contentment – a sensation of returning to our primordial past, of floating in the womb, of being enveloped in a medium that muffles sound and cushions our movements.

I refer to this simply because when someone who was an avid diver does die – and I'm talking about natural, not dive-related, deaths – it seems odd that we, as the diving community, don't have a suitable send-off for them.

I've lost several friends in my lifetime, and two of them were avid divers (and, sorry to say, both were lost in diving incidents, although it must be said that they operated at the more extreme end of the diving spectrum).

I remember thinking how odd it was that diving had featured so strongly in their lives, had been such a powerful, over-riding theme, brought them such happiness, and yet it didn't feature at all as we gathered to send them on their way.

WHAT I'M DRIVING AT HERE is that

we as divers have no eulogy, no established diver's farewell prayer, no common verse to celebrate a life devoted to the sea.

By contrast there is the wonderfully moving *High Flight* by John Magee: "Oh, *I have slipped the surly bonds of* Earth. And danced the skies on laughtersilvered wings, etc etc".

It's an extraordinary poem, evocative and inspiring, wonderful words to bid farewell to a pilot.

So perhaps it's up to us, as the diving community, to come up with a poem or a prayer that epitomises our unique relationship with the sea. We are, after all, the only group of people to explore beneath the surface of the ocean for leisure. It's here that we seek peace, adventure, and – oddly enough – both companionship and solitude.

It seems odd that something that defines us so keenly is ignored when we gather as a group in commiseration.

A challenge then – send in to **DIVER** your version of the Diver's Farewell Prayer, or even a Diver's Poem.

Something that will enter the lexicon of our language, become a custom at dinners and gatherings, and has words that will ring true when we bid farewell to one of our own.



DAYMANIYAT



DAYS

OST OF MY MIDDLE EASTERN dive trips over the years have been to the Red Sea. Hearing about divers' experiences on the far side of Arabia, however, I was becoming keen to expand my horizons and find somewhere new to explore.

As a photographer I was also willing to sacrifice the high visibility for which the Red Sea is renowned for the promise of new underwater terrain and some unfamiliar marine life. My choice for this new adventure was Oman.

Oman lies on the south-eastern coast of the Arabian peninsula, bordered by the United Arab Emirates to the northwest, Saudi Arabia to the west and Yemen to the south-west. The coast faces the Arabian Sea to the south-east and the Gulf of Oman in the north-east.

There are three main diving regions: Musandam in the north, which offers exhilarating drift-diving for more experienced divers; Salalah in the Dhofar region in the far south and, in-between and the most readily accessible, the bays of Bandar al Jissah near the capital Muscat. There are more than 40 recognised sites there, including the Daymaniyat Islands, Bandar Khairan and the Fahal Islands.

The Gulf of Oman is shallow compared to the Red Sea, with depths for diving ranging from 10-30m. The shallow water brings relatively high temperatures that encourage plankton to flourish. This does nothing to help the vis but does provide rich nutrients for the reef, and attracts pelagics including whale sharks and whales in summer.

THE NINE LIMESTONE Daymaniyat islands are split into three groups, western, middle and eastern, with a 10-15-minute boat ride between each group.

They lie 11 miles or so out from the coast, accessible by fast boat. In 1996 they were designated a nature reserve to protect nesting turtles and birds and the coral reefs, and to promote eco-tourism.

I stayed at the 4* El Sawadi Beach Resort & Spa on the mainland to gain boat access to the Daymaniyat Islands, which would provide the largest number of dive-sites. The hotel is just off the beach, and offers clean and spacious rooms and good-quality food. I was happy with the facilities and found the level of hospitality excellent.

The hotel recently took on Euro-Divers to manage its dive centre. Euro-Divers already had a facility in Muscat, catering for many of the expats who live in the city. The local sites are well-dived, but one of the expats told me that the visibility around the Daymaniyats would be much better.

I spent my first day settling in, exploring the empty beaches and enjoying the warm Arabian sunshine.

The following morning after an early breakfast I joined other divers at the centre preparing our kit, and we took the short walk to the beach to help load it onto the new 12m dive-boat.

We set off with a beach-launch, clambering aboard between the waves. Safely past the breakers, the divemaster gave his briefing and we were whisked off over clear turquoise waters to the divesite, a journey of about 50 minutes.

We were being taken to what is probably the most famous site in the region, the Aquarium, while conditions were favourable at the easternmost end of the islands. The site itself lay about two miles out from the islands.

There was no mooring system, so our divemaster dropped in and placed an anchor near a rocky ledge. The reef came up from 25m to a shallow plateau at 8m, with rocky gullies and overhangs perfect for all the snapper taking refuge there.

We descended through a thick shoal of schooling yellowtails as they swayed in the surging current just under the boat. Near the anchor-point a resident spotted moray eel rested. It twisted and turned in its hole, mouth agape.

Just as I was about to touch down, a group of pulsating cuttlefish momentarily shed their camouflage and revealed their presence. I moved in







closer and managed to get some close-up portraits. Wary of the divers and unimpressed by my flashes, they backed away to vanish in a plume of black ink.

My buddy and I split off from the rest of the team and headed down the sloping ledges to the seabed. In the distance I could see a shadow, and as we moved closer I could see that it was a shark.

I was expecting it to be a leopard shark, as these are extremely common in these areas, but as we neared it I recognised the extraordinary shape of a guitar shark.

I had seen one only once before. The ridges running over the head and back make them look prehistoric. As I attempted to get close enough for a photograph, the shy and gentle giant moved hastily away and, with a flick of its tail, disappeared into the gloom. A string of yellow pilotfish swam frantically behind it.

I had been told that there was a resident seahorse nearby at 24m. We arrived at the spot and there it was, wrapped around a piece of soft coral. We spent a few minutes taking photos, then headed back up to the top of the reef.

As if we hadn't seen enough; there we were greeted by a grazing hawkbill turtle. It appeared completely unfazed by us and just carried on munching coral.

We made our final swim across a coral garden to be greeted by more cuttlefish. Our final few minutes were spent on a safety stop being mesmerised by the amazing way in which they change colour and form. What a great dive!

WE HAD AN HOUR TO KILL during our surface interval, so we decided to head west to the islands nearest the resort and dive Mousetrap, a favourite site of our divemaster Stefano. With the boat tucked into a rocky outcrop he gave the briefing.

Mousetrap lies on the more-exposed northern side of the island, so the sea can be quite choppy on entry. We jumped in and descended quickly to the silty bottom at 22m. The visibility was just 6-8m and the water quite green, with a lot of large suspended particles.

The dive was in any case relatively gloomy, as we were on the shadowed side of the island – it wasn't unlike diving in the UK during those springs blooms.

Stefano guided us along a wall covered in purple whip corals waving in the gentle currents. We came to a large boulder area containing a labyrinth of tunnels, which I always enjoy. You never know what you might encounter in a dark cavern!

This was a great site for getting a few shots of divers exploring overheads. I got my dive-buddy to pose with my small LED torch near some of the colourful corals tucked under the ledges.

The temperature changed during the

dive. I could see as much as feel the change, as I swam through the thermoclined water. One second I could see clearly, the next I was in a soupy blur.

We had been down for 40 minutes, and came across huge schools of yellowtails at what appeared to be the end of the island, marked by a rocky outcrop on the bottom and strong currents that had encouraged many fish to congregate. Wherever you looked there were fish – it was a great site for hanging out to observe the scene.

ILOOKED DOWN TO SEE, just below me, a leopard shark, lying motionless on the sandy bottom. I signalled to Stefano to go round to its other side and move in slowly. I approached cautiously from the opposite direction across the bottom until I could fill my image frame with the 2m shark.

I manage to rattle off some shots before the spotted giant decided that it had had enough. It left with a flick of its tail and headed off into the distance.

Continuing across the bottom, we came across an even larger area of whip corals covering huge boulders and gullies. But it was time to make our way into shallower waters at 10m.

The sun started to appear from around the southern side of the island, its light dappling the coral ledges. The brighter it got, the better the coral appeared. We were soon presented with a beautiful coral garden with large areas of untouched fragile table corals.

It was strange transferring from one extreme to another at Mousetrap. The north side offers diving similar to that of the Mediterranean Sea, but a short swim around the corner takes you to the equivalent of an Egyptian coral reef.

We spent 15 minutes enjoying the shallows, watching pairs of Moorish idols darting in and out and a free-swimming spotted moray snaking its way through the reef, looking for its next hidey-hole.

It was time to make our safety stop. We finished the dive with a shallow drift along the reef, peering down on the busy reef to watch the underwater world go by. What a great day's diving!

OVER MY WEEK in Oman I logged 10 dives, and the two sites I've described seemed to me to be the best in the area. Most of the dives on the islands were very similar, with steep walls on the north sides and shallow reefs on the south, but each had its good points, and we would invariably see something different.

On Blacktip Reef in the central islands we saw at least 10 blacktip reef sharks, and although they were skittish it was great to see them in quantity.

On other sites such as Haynut Run we













saw leopard sharks and large sting rays.

If you're used to doing a couple of dives a day in Egypt on a typical day-boat from Sharm, with plenty of deck-space and ample shade, the Oman experience is rather less relaxing. The Euro-Divers team has a spacious covered boat that's extremely comfortable, and the free drinks, snack and fruit are a nice touch, but spending every day on it in sweltering midsummer heat could be a bit much.

Euro-Divers runs two trips a day to the Daymaniyat Islands. Divers have the option of two morning or two afternoon dives, though the really keen can skip lunch (the turnround time is short) and do four consecutive dives.

Aquarium Reef is the furthest reef from the resort, so if you decide to visit nearer sites such as Mousetrap in flat waters each boat trip can

be as short as 30 minutes.

Doing four dives could involve spending a lot of time transferring to and from the resort. I met a number of customers who had tried this, but most found the four boat trips exhausting, especially if it was a bit choppy.

There are other sites to dive, such as the Al Munassir wreck in 28m, but the vis can be very poor in the Muscat region. A holiday in Oman is also more expensive than one in Egypt – the diving and hotel were good value, but shop around to make sure you get flights at a good price.

I thoroughly enjoyed my week in Oman and would recommend it highly. The Egyptian Red Sea offers more colour and better visibility but Oman has its own rich and varied marine-life offering.

> If you want something a little different, it may be for you.



DIVING & ACCOMMODATION

Euro-Divers, www.euro-divers.com at Al Sawadi Beach Resort & Spa, www.alsawadibeach.info/en

WHEN TO GO >> May-September, water temperature ranges from 24-32°C so a thin suit should suffice.

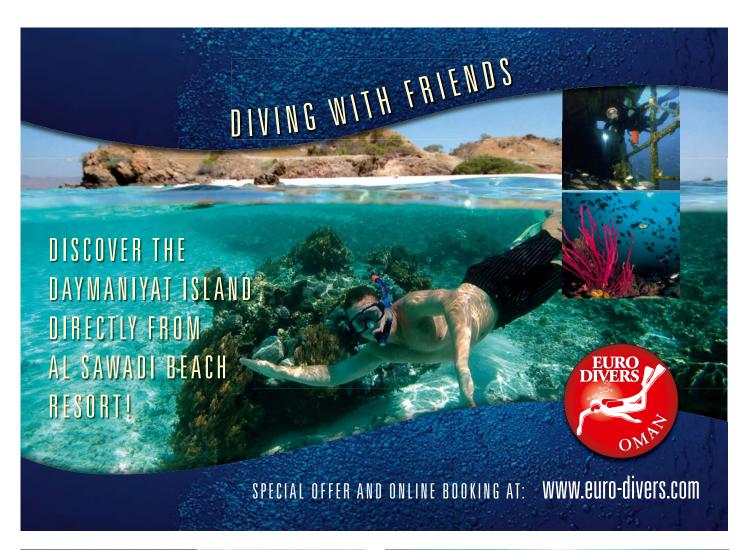
CURRENCY >> Omani rial.

PRICES >> Regaldive can offer a package from £899pp, including flights, transfers and seven nights in a garden-view room at Al Sawadi (twin-share). Five days' diving (two boat dives a day) costs £223. www.regaldive.co.uk

VISITOR INFORMATION

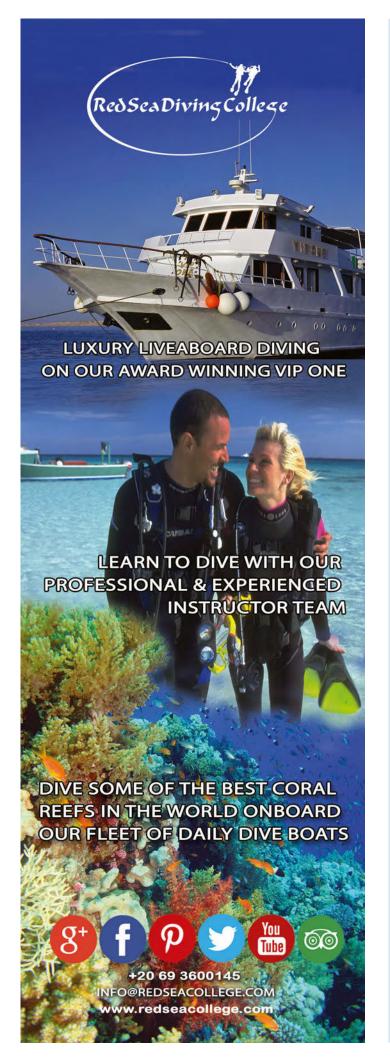
www.omantourism.gov.om











TREWAVAS



MAN **UPSIDE-DOWN**

YOU JUMP INTO THE WATER and you're entering the unknown. Who knows what you're going to see? And if you're diving the brown seas out of Dover, whether you're going to see at all.

Luckily for me I'm wreck-diving in Florida. For me, it's the unpredictability of what I might encounter that is the joy of diving.

There's a video clip currently circulating among divers on Facebook that witnesses the mortal struggle between a large moray eel and a huge sea snake. The snake appears to have been swallowed head first, and has then burst out of – but not entirely escaped from – the tail-end of the moray.

Despite this injury, the moray fights on, lunging and biting at what looks like a gigantic extension of its own body.

Imagine stumbling across that on your dive! Without the video nobody would have believed a word of it once you got back on the boat. But stranger things happen at sea.

And that was the thought that passed briefly through my mind when I turned to check on my randomly allocated buddy at the end of our second dive together. I encountered an upside-down man, pawing at the water and fighting with his BC a few metres above the wreck. Hmmm.

Upright diver trying to climb an invisible underwater ladder = out of air. Upside-down diver fighting to get out of an invisible set of pyjamas = positive buoyancy.

Well, bizarrely enough, the training drills that you undergo with various diver training agencies never really replicate authentic "diver-in-trouble" behaviour.

People mostly don't calmly draw your attention to some problem they're having and perform the

THEY'LL SUDDENLY **GO ALL COMEDY-DIVER OR PSYCHO-DIVER ON YOUR ASS**

appropriate drill. Instead - to paraphrase Samuel L Jackson in Pulp Fiction they'll suddenly go all comedy-diver or psycho-diver on your ass.

So then, probably because I'm British, I feel obliged to assist. As opposed to the more widely accepted Florida USA response of laughing, or fending them off with your dive-knife, as appropriate.

What was distracting me as I swam over to help the upside-down man was the recognition that I had casually ignored the "diver-full-of-bull****" behaviour on the boat beforehand.

Firstly, there had been the bragging about extensive diving experience, inexplicably accompanied by extensive fiddling about with a weight-belt stacked with far too much lead.

Next, the regulator hoses twisted and trapped underneath his BC during kit-up. Then, the general faffing – all were glaring warning signs. But I had cheerfully felt no responsibility to take heed at the time. No, in my view I was diving with my GoPro. This guy just happened to be tagging along.

So when the struggling upside-down man seized me like an enraged moray in its death throes, yanking me upwards in a prelude to dragging me to the surface with him, I quickly realised that a neutrally weighted diver is no replacement for a lost weight-belt.

Readers, I slipped out of his grip. And I watched him go.

Unkind? Well to be fair, I didn't film him as he flailed off to the surface and then post it on YouTube. Unlike the moray, he survived the episode

Strangely enough, he was considerably less expansive about his diving experience on the journey back. Diving: you've got to love the unpredictable.

LOUISE TREWAVAS



Biting the hand that feeds



They might wear chain-mail suits, gloves and helmets, but

shark-feeders in the Bahamas can still get hurt, says JOHN BANTIN

HARK FEEDING IS NOT without its risks, despite the precautions usually taken. In the Bahamas, the feeder nowadays wears a chain-mail suit, gloves and an American football helmet.

Australian Valerie Taylor, veteran shark naturalist with her film-making husband Ron, was the first to experiment with chain-mail suits. There was one famous television sequence in which she encouraged a large shark to bite her arm.

Chain-mail doesn't stop feeders from getting hurt, however. Leon Joubert, a one-time shark-feeder in the Bahamas, experienced a shark getting its teeth tangled in the chain-mail material cladding his arm.

He wasn't bitten, but in its violent struggle to get away the animal twisted and fought and managed to break seven bones in Leon's hand, arm and shoulder, and to sever two nerves.

After a couple of lengthy operations and nearly a year of therapy, he recovered a high proportion of the use of that arm. He later went home to South Africa to start a business called – Bitten by Sharks.

Shark-feeders didn't always wear a full suit and helmet to do their job. Michelle Cove, another pioneer of shark-feeding, got scalped by a shark when she dived in to right an upturned baitbox during a staged feed, and sustained an accidental bite to the back of her head.

Her injury was so severe, and she was bleeding so profusely, that the captain of her boat fainted when she climbed back on board.

You can poo-poo it, but every day long lines of people, of whom few are accomplished divers, wait patiently,

signed disclaimers in hand, to rent a wetsuit and a set of diving equipment and join a shark dive at South Ocean near Nassau.

With fast boats that can carry up to 15 divers each, some days as many as 45 people get in the water with the same number of large hungry sharks and live to tell the tale – and what a tale it is!

Back in the USA, from where most of these visitors hail, they'll be regaling their disbelieving friends and neighbours with the story of how they swam with sharks, and they'll have the still photographs or the video to back up their story.

You can dismiss it as a circus or an underwater theatre, but the sharks are unaware of that – they're simply there for a free handout of food. Why else would they want to come up from the depths to be close to noisy, air-bubbling divers?

MANY OF THESE PEOPLE are enjoying a day away from their cruise-liner, and instead of gawping at the fish in the Atlantis Hotel's aquarium on Paradise Island, they get in the water and let the fish gawp at them instead.

Good for them! It's good for the sharks too, because when it comes to conservation, the dollar takes precedence. These sharks earn a fortune for the Bahamas economy, which is why they haven't been killed, cut up and dragged off to the Far East.

thrusting the thing out in front of them in an inviting way as they look at the LCD screen. The shark-feeder comes down from the boat with the bait-box when everybody is ready, and inevitably brings the sharks with him or her.

Some of these participating guestdivers may hardly know the difference between a regulator and the corrugated hose of their rented BC before they get in the water, but why should any experienced diver want to join in on one of these shark dives?

I'll tell you why. Sharks are impressive creatures and female Caribbean reef sharks are the ones you always see in movies featuring "shark-infested waters".

Contrary to popular belief, there is no feeding frenzy. Sharks are long-lived creatures that spend their time trying not to get damaged by either their prey or other sharks. Up to 40 swim round in some semblance of order, and there is only a moment of urgency when one of them manages to procure a mouthful of bait and swims off in a hurry so that it doesn't have to share it.

Naturally, the people in control of the box of dead fish-cuts tend to be the focus of this concentric activity. Although the hub of the feed is where the most action is, as two or three sharks compete for that final lunge, the sharks passing in and out of the circle give keen photographers ample chance to get those natural-looking



Shark tourism draws an estimated \$78 million annual income for the national economy, and reef sharks are estimated to be worth around \$250,000 each in tourism and shark-related activities.

The punters are usually arranged in a kneeling formation on the seabed and told to keep their arms folded and not make any sudden movements. This is to prevent them shoving a hand into a passing shark's mouth unexpectedly.

They are encouraged to use the viewfinder of their compact camera if they want to take pictures, rather than

shots of sharks that are so elusive out on the reef.

The first rule of good underwater photography is to get close, then get closer still. These sharks come very close. They often come close enough to touch, and touch you they often do as they swirl by. As they pass you can even see their tiny ampoules of Lorenzi, the pressuresensing nerve-endings around the sharp end of these animals.

An enlightened Bahamian government has encouraged the dive centre, Stuart Cove's, to sink as many wrecks as possible



www.blueotwo.com/diver tel: +44 (0) 1752 480 808 | email: info@blueotwo.com













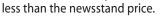
Liveaboard of the Year 2014, 2013, 2012, 2010, 2009, 2007 and Tour Operator of the Year 2011: DIVER Awards | Best Tour Operator 2014 & 2013 and Best Liveaboard 2013: Sport Diver Awards

Get Britain's best-selling diving magazine on Apple Newsstand, major Android devices, Kindle Fire, HP Touchpad, Windows 8 and PC & Mac.

You can also access digital editions of DIVER via www.pocketmags.com and Pocketmags Magazine News Stand for Kindle Fire.



Simply download the **DIVER** app for FREE from the App Store or Google Play and receive a sample copy completely FREE. Once you have the app, you will be able to download new and back issues or take out a subscription all for













DIVE & STAY IN MEXICO





COMBINE THRILLING OCEAN ADVENTURES...

COZUMEL WALL DIVING * CENOTES * BULL SHARKS WRECKS * LOCAL REEFS * WHALE SHARKS * SAILFISH RUN FREE NITROX * GREAT GROUP DEALS!

... WITH ACCOMMODATION IN EXQUISITE HOTELS! AT THE RIVIERA MAYA AND COZUMEL.

WE ARE LATIN AMERICA'S LEADING PADI CDC FACILITY. DIVE TRAINING FROM BEGINNER TO INSTRUCTOR LEVEL.

www.prodivemex.com

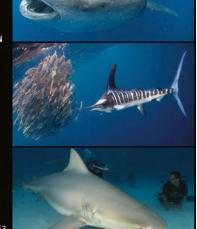


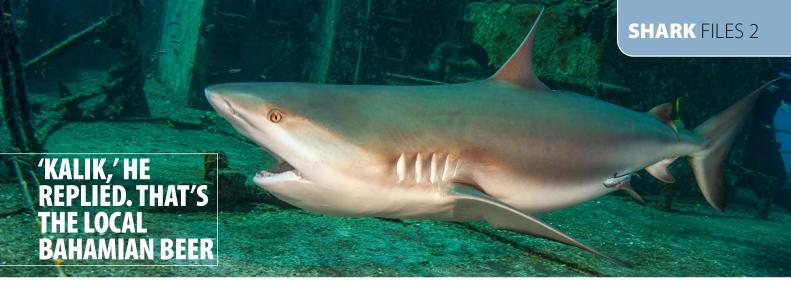












in shallow water for the benefit of divers. Some of these wrecks are covered in coral growth, others strangely bare.

The young people that take on the job of shark-feeding are very competitive and like to try to outdo each other.

Chang, a Chinese-Australian and one of the most experienced feeders, took to feeding the sharks around the aft deck of one of these wrecks, one with no coral growth to speak of.

He liked to have the audience holding on safely to the outside of the stern railings, and the chain-mailed company

photographer and videographer waiting for him to arrive theatrically on the upper part of the superstructure surrounded by the sharks, like a bunch of overweight pigeons.

Then he would leap, weightless and super-hero-like, down onto the deck and start the feed. All this gave an interesting background to the photographs and, while Chang the

chain-mail-clad feeder was doing his stuff for the paying audience, the underwater photographer could also get unusual shots of sharks swimming round the rusting metal.

Successive shark-feeders have continued with Chang's method of using the wreck, although some still prefer to do the feed on the sandy seabed.

One of the dramatic tricks sometimes demonstrated by the feeder is to put a shark into "tonic immobility". This means holding it by the dorsal fin and tail and turning it over. I asked Stuart Cove how he discovered that sharks became docile when he first did this many years ago.

"Kalik," he replied. That's the local Bahamian beer. When they were kids, Stuart and his friends would go out fishing in the Tongue of the Ocean and inevitably find their boat surrounded by sharks that fed on the scraps discarded when they cleaned the fish they had caught.

After more than a few beers, someone would be encouraged to jump in and swim with the sharks. Don't forget, this was in the days when all sharks were considered "man-eaters".

Things progressed, as they do, and the boys would go further on each trip, daring each other to do something riskier. Eventually they ended up grabbing hold of the sharks, and finding that the animals became torpid when they did so.

A game played once they were into

scuba-diving was to grab a shark, point it in the direction of a friend under water and let it go like a missile.

Boys will be boys, but this knowledge of what we now call tonic immobility has been used time and time again since by shark conservationists, for example to remove fish-hooks lodged in their mouths.

The practice might sound rather cruel, but the sharks do seem to

enjoy the attention. I'm sure that if one of these big and powerful animals wasn't willing to be held and even caressed, we'd all know about it. They have a lot of teeth.

OF THE THOUSANDS of paying guests to enjoy shark-feeding experiences at Stuart Cove's, none has ever been injured by the sharks. However, it's always on the cards for those holding the bait, because a shark closes its eyes with its special nictitating eyelids at the moment it grabs the bait. Both shark and feeder can make mistakes.

The audience shouldn't feel threatened, because the sharks are focused on the cuts of dead fish offered. It's not something you see every day but you can be sure that the feeder keeps his hands away from those hungry maws, chain-mail or not.

* Stuart Cove's, www.stuartcove.com

Above: It's not always easy to find sharks posing on scenic wrecks.

Below left: Chain-mail provides an element of safety for shark-feeders.

Angels vanish

Like many species of shark today, squatiniformes are



becoming harder to find – but fortunate encounters

in Lanzarote bring happy memories for LISA COLLINS

AFTING ITS WINGS
GENTLY, the angel glided past
me, a vision appearing out of a
cloud of sand. It hovered above the
bottom before softly sinking and, with a
slight flap of its wings, disappeared from
sight only a few metres away.

Looking more closely, I could see two round eyes, with vertical pupils staring back at me. Was I in heaven?

I almost felt I was, even though I was in 18°C waters just off Puerto Del Carmen in Lanzarote.

From more years ago than I care to think about, I have vague memories as a small girl of a holiday in Cornwall. The most memorable part was my father taking my brother fishing at the end of a pier and my brother catching two fish – a weever, with poisonous spines, and a small angel shark.

I remember being scared of the weever but fascinated by the angel shark. I wanted to know why it was called an angel – could it fly, did it come from heaven? Before my questions were answered, both fish were swiftly unhooked from the line and

WWW.DIVERNET.COM

SHARK FILES 2

thrown back into the ocean.

Fast forward several decades, and this long-forgotten memory came zooming back to me as I carefully fanned the sand away with my hand several inches above the head of this angel.

As we looked at each other, the shark with total indifference and me in wonder, I realised how lucky I was.

Angel sharks, the *squatiniformes* order, are on the "Critically Endangered" *IUCN Red List of Threatened Species*. Before the 1970s, and around the time my brother caught his fish, they were fairly common, often a useless by-catch of commercial fishermen using gill-nets. The fishermen would use them as bait for crustaceans.

Annual takes off the Californian coast in the mid-1970s were found to be only around 145kg.

Fish-processors and commercial fishermen then, unfortunately, developed a market for angel sharks. A staggering 450 metric tons or some 90,000 sharks were taken in 1985 – in California alone!

The species became devastated worldwide. Once abundant in both the Atlantic and Pacific, they had been fished almost to extinction.

ANGEL SHARKS ARE, TO ME, beautiful. They have unusually flat bodies, with large, broad, horizontal pectoral fins, used for balancing and braking and set behind the five gill-slits on either side of a large flat head.

Two dorsal fins, also horizontal, sit on their back. Flattened when camouflaged under the sand, these rise vertically when the shark is swimming.

Adult angel sharks are greenish-brown, with white and black spots patterned in a



Above: Angel shark seen from behind, showing the formation of its fins.

Below: A large adult angel shark, looking very ray-like from the front.

marble-like effect. Young angels are more distinct, with white net-like markings and large dark blotches. The dorsal fins of both have a black leading edge and a pale trailing edge.

The large head is similar in shape to that of a wobbegong or nurse shark. Simple whisker-shaped protrusions near the nostrils, called nasal barbels, are used to taste and smell.

Although not aggressive towards divers, when provoked angel sharks will, like most animals, bite. The have strong jaws and needle-sharp teeth that can impart painful lacerations.

The large eyes provide good all-round vision, making these sharks efficient ambush predators. Buried in the sand, they are extremely well camouflaged, and well equipped to catch their prey.

Atlantic angel sharks grow to around 1.5m, whereas Pacific ones, most notably Japanese angel sharks, can grow to 2.5m.

Where Atlantic specimens are found in shallower temperate waters and estuaries down to 150m, the Pacific angel shark inhabits more tropical deep waters down to 1300m. They are solitary by nature.

They are ovoviviparous, which means their young develop in eggs remaining inside the body for 8-10 months. Females bear 7-25 live young 24-30cm long. They can live for up to 13 years.

Atlantic angel sharks were traditionally distributed between Norway, Mauritania (North Africa to the Mediterranean coast), the Canary Islands and the Black Sea, but they have now vanished from some of these areas and are extremely rare in the rest.

Among their last strongholds are the Canary Islands, especially Lanzarote.

They migrate to the shallow protected bays in the south and east of the island from early November through to April on their way to Norway, where they spend the summer months.

IT'S IN NOVEMBER that female angel sharks give birth. It's difficult enough to see an adult angel shark normally, as they bury themselves in the sand, so seeing a miniature version is almost impossible.

Divers often swim over small mounds in the sand unaware that an angel shark is hidden below.

The best way to find one is to look for either a large pear-shaped mound in the sand or a large indentation that might indicate that a shark had been hidden there. Have a close look around the vicinity and you could well spot it, as they don't tend to swim too far.

The Zoological Society of London has been working with the Canary Islands' sport-fishing community as part of its Angel Shark Conservation Project.

It is designing a best-practice guide to catch and release, to encourage sports-fishermen to conserve the species and recruit and train them to tag the sharks.





Welcome to the Neo Quantum Air made from the lightest weight dive grade Neoprene on the market.

- High density super flex material with armour tex outer shell
- · Super soft Glide skin neck and wrist seals
- •New Warm neck system
- · New sure-'fit' sizing
- •2 Large expandable pockets with two way zips
- · Blind stitched a taped
- · Heavy duty dry zip
- Rubberised knee pads
- Thermo lined boot with fin retainer
- Apex valves and hose

FOR MORE INFORMATION TYPHOON-INT.CO.UK





ZSL recently obtained funding from the Disney Worldwide Conservation Fund for this project. Canary Islanders are also being encouraged to collect and report sightings of the sharks to identify important habitats for the species.

VERY SOON, THE SHARK got fed up with me studying it and, with a quick flick of its powerful tail - unusual in itself, because it doesn't have an anal fin like most other sharks - it quickly disappeared.

Over the course of the week I spent in Lanzarote in November, diving with Native Diving of Costa Teguise, I saw one other shark swimming away in the distance. Unfortunately for me, I had my macro lens on, because I was shooting seahorses.

I returned in March, and Cruz of Native Diving took us to the far south and Playa Flamingo, near Playa Blanca. Surface-swimming from the shore along the sea-wall, we descended at the mouth of the bay to a sandy bottom at around 10m.

All around us were large indentations, clear signs that sharks were about. We searched and studied all the angel sharkshaped mounds of sand, but without luck.

Then, as we swam back to the entrance of the bay to begin our descent, a large adult male approached from the blue. Swimming between the four of us, it settled on the bottom close by.

Seeing the shark up close, I could really study its strange-looking fins. It resembled a sting ray from the front, but from the back it was most definitely a shark.

And by the way it swam (or flew), it was definitely an angel.

It flicked its fins and was soon camouflaged under the sand. We left it in peace to complete our dive, feeling privileged and happy.

PJ probe: sharks' social networks



Above: A diver watches as

an angel shark settles on

the sand. They are easily

spooked.

New tagging technology is helping researchers reveal the mysteries of shark society in Australia,

says JÚSTIN GILLIGÁN **ROWDS OF METRE-LONG** sharks lie motionless on the seafloor within gutters etched into

the rocky reef. Some are piled up under overhangs, while others are isolated and out in the open.

Beneath a waving frond of kelp, a shark raises its head and pivots upward on a pair of pectoral fins. With a few beats of its club-like tail it propels itself forward to

reveal a pencil-sized cylindrical device attached to its flank.

A diver motions forward to grab the shark. He catches it by placing one hand on the back of its head, and the other around the tail. It struggles and bucks back and forth, before finally admitting defeat and allowing the diver to swim it up to the small canoe waiting above.

"Yes, this is the recapture we're after!" says Nathan Bass, a PhD candidate with Macquarie University, which is studying the social networks of Port Jackson sharks.

He passes the shark up to the team in the canoe. They work methodically to gather as much data as possible during each short encounter with this species.

Like all sharks of the primitive order Heterodomtiformes (horn sharks), the Port Jackson has a blunt head and spines on the leading edge of the two dorsal fins.

Yet its unique colour pattern is distinguishing and intricate. Dark harness-like markings cover the eyes, run along the back and cross over along the side of the body.

The team measures the shark from the tip of the snout to the upper lobe of its dorsal fin before placing it in a bag and hoisting it into the air to confirm the weight. The average size of a male Port Jackson is 95cm (6kg), while a female is slightly larger at 1.2m (14kg).

A tissue sample is then collected for DNA analysis, and a unique identification number is read from an orange tag attached to the shark's tail (which is used to identify individuals during diver





Sydney and throughout Jervis Bay.

The diving in Jervis Bay has been rated among the best in Australia. Shallow seagrass meadows provide a haven for a diverse suite of colourful characters such as weedy seadragons and pyjama squid, while the kelp-dominated shallow rocky reef gives way to boulder fields encrusted in sea tulips, sponges and ascidians.

Large blue grouper, schools of old wives and inquisitive giant cuttlefish are regulars, while red Indian and blue devilfish are among the hidden gems to be found in the Port Jacksons' domain.

surveys). Finally, the receiving device that drew Nathan to this particular Port Jackson is removed, before the shark is released back into the sea.

"Each proximity receiver we find adds another piece to the puzzle," says Nathan. "It's just a matter of locating the sharks again so that we can download the data."

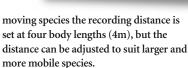
THIS LATEST MARVEL in acoustic technology records and stores information about encounters with other acoustically tagged sharks. By recording the date, time and an identifying number, the research can take place without human interference over a continuous period of time.

For this relatively small and slow-

Above: The researchers find Port Jackson sharks in their hundreds in small groups on the seabed.

Right: A tail tag identifies individual sharks while the survey is going on.

Below: Port Jackson sharks are easy to handle, but guidelines have to be observed to minimise impact on the animal.



"We're trying to demonstrate how the sharks interact," says Nathan. "The social structure of a population is closely connected to their behaviour, ecology, and evolution."

By combining the proximity receiver data with other tried-and-tested acoustic technology – including continuous acoustic tags and receiving stations strategically placed around the survey sites – Nathan aims to demonstrate that the sharks form social relationships, and then to determine the functions of these relationships.

It's his second winter studying the sharks, which are endemic to southern Australia. They gather in numbers off New South Wales (NSW) between June and September, during which time Nathan divides his time between two study locations in Jervis Bay and off Sydney.

The sharks are popular with the avid groups of divers drawn to the same temperate reefs along the southern NSW coastal fringe. Peppering the reefs throughout their distribution, some of the key locations for encountering this species include Forster and Seal Rocks, Fingal Island off Port Stephens, Bare Island off

Diving conditions vary by the day, with water temperatures fluctuating from 16-22°C. Vis can also change with the tide, wind and prevailing weather conditions, and varies from 40m to within arm's reach. Fortunately for Nathan and his team, the sharks are common at the study sites, and most conditions are workable.

The gentle Port Jackson is the perfect model species to study the application of the proximity receivers. "There are plenty of them and they're easy to handle – you can just reach right out and pick them up," says Nathan.

The team works within the constraints of strict animal care and ethics guidelines to ensure minimal impact on the shark during the encounter.

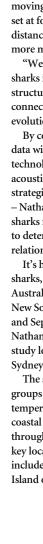
Each step of the scientific process is calculated and performed by researchers with a passion for shark conservation.

EAGER TO ASSIST are enthusiastic volunteers hoping to get hands-on with wild sharks. Many of them have their own marine postgraduate research projects.

Once trained, the volunteers can participate in all aspects of the fieldwork, and it's the perfect project for budding marine scientists to hone diving and field skills that can then be applied to their own projects.

Up to four dives are undertaken daily at the study sites, and sometimes further





SHARK FILES 3

afield during exploratory excursions, so there is plenty of time in the water.

On one exploratory dive Nathan recalls the discovery of a huge aggregation of Port Jackson sharks off the southern side of Jervis Bay. "There were so many sharks there it was unbelievable, hundreds on the seafloor in small groups – it was a remarkable encounter for our team."

"It's just an amazing experience all round," says Jo Wiszniewski, Research & Conservation Co-ordinator for the Taronga Conservation Society Australia and co-supervisor of this project. "All the sharks have different personalities – some come quietly to the surface, while others can be feisty and whip around."

Jo's own PhD examined the social networks of dolphins. "These two projects are quite similar - they're both asking questions about the social relationships within a population and the factors that



THERE WERE SO MANY SHARKS THERE IT WAS UNBELIEVABLE'

influence those relationships," she says.

To document the social interactions of dolphins along the NSW coast, Jo used photo-identification and a biopsy pole to obtain muscle samples.

She identified separate populations to show that dolphins living in bays such as Yamba and Port Stephens were genetically distinct from those living offshore.

This research also identified separate dolphin communities in Port Stephens, which Jo examined more closely. She found that each group had a preference for particular habitats influenced by either marine or estuarine waters.

Female dolphins were also shown to form strong bonds with male and female relatives, while the male dolphins formed Above: Returning a shark to the water after examination.

Below and clockwise:

Acoustic device for locating the sharks; a shark beneath the survey boat; a Port Jackson shark egg-case.

strong bonds with other males based on competitive ability, which was later linked to reproduction success.

"We knew that social relationships existed with the dolphins, so we were looking more at the long-term changes and the stability of those relationships," says Jo. "Dolphins are well-studied, so we wanted to move to sharks, as there has been only limited research in this field."

Preliminary results in the Port Jackson study already hint that the sharks do exhibit complex social behaviour and that individuals form stable social bonds.

During the breeding season they have a limited home range and tend to organise themselves by size, but not sex.

Female sharks also tend to interact with each other and avoid the males, while the males tend to direct their interaction towards the females. Nathan reckons these results suggest that the males are looking to reproduce, while the females

are trying to avoid the harassment.

"A key potential of using this technology is to determine the connectivity between social structure, segregation and habitat usage, which can ultimately contribute to their management," says Nathan.

Commercial and recreational fisheries don't target Port Jackson sharks, but they are commonly caught as by-catch. It's important to manage these aggregations, as their life-history characteristics make them, along with other shark species, highly susceptible to over-exploitation.

Understanding the social behaviour of a single shark species won't uncover the secrets of global shark conservation.

It is, however, a significant first step towards setting a baseline of behavioural assumptions that can be tested with other more threatened shark species.

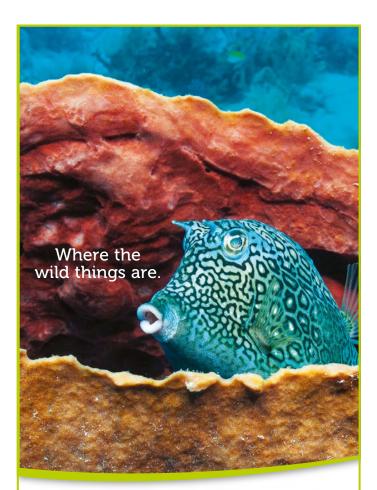
"By understanding the formation of shark aggregations and shark society, we'll learn how to better manage shark populations and maintain healthy marine eco-systems," says Nathan.

If you would like to get involved with this study, you can email him at:

* nathan.bass@students.mq.edu.au







What weird and wonderful things await you when you dive The Florida Keys & Key West? With the only living coral reef in North America and thousands of different species of marine life, everything you can imagine.

fla-keys.com/diving



Holiday Inn Key Largo
Located next to deep-water marina.
Spacious guest rooms. Restaurant on-site.
305-451-2121 holidayinn.com/keylargofl

Florida Keys Dive Center, Islamorada PADI 5 star CDC. Diving REEFS & WRECKS of Key Largo, Islamorada & Pennekamp Park. 305-852-4599 mykeysdiving.com

Amy Slate's Amoray Dive Resort, Key Largo
Waterfront rooms/pool/beach/scuba/snorkel instr
& boat charters. 3/nt, 2/dive pkgs from US\$330 ppdo.
305-451-3595 amoray.com

Dive Key West, Inc.
Keys' premiere dive shop. 44th year.
Custom dive pkgs. Call today.
305-296-3823 divekeywest.com

AGGRESSOR FLEET® & DANCER FLEET® WORLDWIDE SCUBA DIVING AND TRAVEL ADVENTURES SMALL INVESTMENT EXTRAORDINARY RETURN!













Ultimate Vacation Value. Once you

travel to the exotic destinations and board our dive yachts, you will discover a remarkable return on your investment.

Scrumptious chef-prepared meals, deluxe accommodations, breath-taking underwater encounters, and around-the-clock professional service await you for an all-inclusive great value.

Delivering the "Ultimate in LiveAboards" has been the mission of Aggressor Fleet and Dancer Fleet staff from Thailand to Belize.

Join an inclusive Aggressor Fleet and Dancer Fleet adventure and discover the LiveAboard Lifestyle!



+1-706-993-2531 info@liveaboardfleet.com www.aggressor.com

· Alor · Bahamas · Belize · Cayman Islands · Cocos Island · Dominican Republic · Fiji · Galapagos · Hawaii · Komodo · Maldives · Myanmar · Palau · · · Pulau Weh, Indonesia · Red Sea · Thailand · Turks & Caicos · · ·

Project Oceanic Whitetip



TONY EVERITT reckons his educated encounters with oceanic

whitetips on a Red Sea liveaboard made it the trip of a lifetime

HAD VISITED THE RED SEA many times in my 20 years of diving, yet my shark experiences there had been limited to blurred shapes in the blue. So the prospect of a week aboard blue o two's liveaboard blue Horizon, billed as Project Shark, filled me with excitement.

Although shark encounters cannot be guaranteed, the format for this week was designed to maximise the chance of us getting up close in a safe environment for both sharks and diver.

Heading the trip was our dive guide, marine biologist Dr Elke Bojanowski. She had arrived in Egypt in 2004 armed with a PhD in animal behaviour from Berlin, and after spending time observing an oceanic whitetip shark (Carcharhinus longimanus) at close quarters beneath a dive-boat much to the captain's distress - she had decided to found Project Longimanus.

Supported in her research by the Hurghada Environment & Reef Protection Agency (HEPCA) and blue o two, she has dedicated the intervening years to studying this species.

The project involves using the digital photographic records made by Elke and by the many visiting divers who are invited to submit their own photos to her Red Sea Sharks website. It is vital that they also submit the date, time of day and location of the sighting.

By using the shape and the white markings on the fins of oceanic whitetips, it is possible to catalogue individuals, and the information can be used to log the migration patterns and life-span of these sharks, about which very little is known.

Unlike many species of shark, oceanic whitetips are known for their inquisitiveness around humans in the water - and close contact is important from a photographic point of view.

On the diving itinerary for the trip were the marine parks of the Brothers islands, Daedalus and Elphinstone, these offshore reefs being considered the most likely spots for such pelagic encounters.

The boat journey from Hurghada to the Brothers and between the offshore reefs is long and can be rough, so the size and stability of blue Horizon was welcome. The crossings were made overnight to

Right and below: The unmistakeable lines of the imposing oceanic whitetip.



1T HAD BEEN THE ENGINES maximise dive-time during the day, and sleeping proved to be no problem, despite a moderate swell. Diving consisted of three dives a day in the marine parks, because night-diving is

not allowed on safety grounds.

After the last dive of each day, before our evening meal, Elke gave interactive talks on shark biology, identification, behaviour (especially around humans) and conservation.

Her interesting presentations refuted many myths about sharks and shark attacks, and prepared us for rewarding encounters. Elke emphasised how much more dangerous we are to sharks than they are to us, and the impact humans are having by slaughtering them for their fins or through fishing practices such as longlining for tuna, which can involve sharks as by-catch.

Sharks are at the top of the food chain, and vital to the overall health of the marine environment.

Divers' behaviour when sharks are around is important, and not just for safety, either. Doing the wrong thing can drive a shark away, and then there will be no interaction for anyone.



Red Sea dive-boat operators have been given specific instructions for maintaining diver safety. Feeding or baiting of sharks is not permitted, and boat operators found breaching this rule are subject to fines or withdrawal of their licences. All this makes diver behaviour an even more important factor.

Elke explained the normal behaviour of the sharks, and which diver actions would upset or agitate them. She also reinforced the fact that we as divers are most definitely not on their menu.

Circling behaviour is the shark's method of gleaning as much information about us as possible, by sensing vibration and electrical fields. It should not be mistaken for a sign of impending attack.

Relax, maintain neutral buoyancy and enjoy the experience was the message.

Our early-morning dive at Big Brother island brought sightings of three thresher sharks above the southern plateau.

Little Brothers' South-west Drop-off cleaning station allowed us close contact with several grey reef sharks, and at Daedalus reef we encountered several whitetip reef sharks.

Seeing three species in four dives

represented a good hit-rate, but the oceanic whitetips for now eluded us.

The weather was fair, so it was decided to make an overnight crossing to Elphinstone and carry out the next dives there in the early morning.

Awake by 5.45 and in prime mooring position directly beside the reef, we were excited to learn that the crew had seen at least one whitetip at the surface while mooring the boat. Presumably it had been attracted by the noise and vibration of the engines in the darkness.

NOMINATED TO BE AMONG the first group of divers, I jumped in with my camera. Elke had asked me to take pictures of any sharks we saw from their left and right sides and also front-on.

A few minutes into the dive, the unmistakeable outline of an oceanic whitetip appeared, no doubt attracted by the sounds of divers entering the water. Well-prepared as we had been, it was still electrifying to see the shark coming towards me from the blue.

I gained control of my breathing as I took my pictures. Then, incredibly, two more whitetips appeared and became interested in the activity. My 68-minute dive rewarded me with close contact with two large females and one smaller male previously unidentified by Elke.

The sharks continually came and went in and out of the blue, and it was helpful for taking pictures to have two buddies visually tracking them while I concentrated on a single subject.

The male came particularly close, circling me and rubbing against my body.

Remaining calm, I circled with it and maintained eye contact, as instructed. At no point did I feel in any danger, because the sharks remained interested but calm. My state of mind was certainly helped by Elke's thorough teaching.

This was a once-in-a-lifetime trip, but it's important that the human effects on shark populations be reversed so that such encounters are possible for generations to come.

Millions of still-living sharks are thrown back into the ocean each year to face a prolonged death after removal of their fins to make soup. Shark products find their way into the health and beauty industry through the mistaken belief that they can prevent cancer, smoothe out

wrinkles or act as an aphrodisiac. It isn't difficult to buy shark-skin products such as belts and handbags.

No one question the right of a subsistence fisherman to catch a shark to feed his family, but killing them in huge numbers for spurious reasons is troubling. Shark killings must be reduced, and shark reproduction needs to be encouraged.

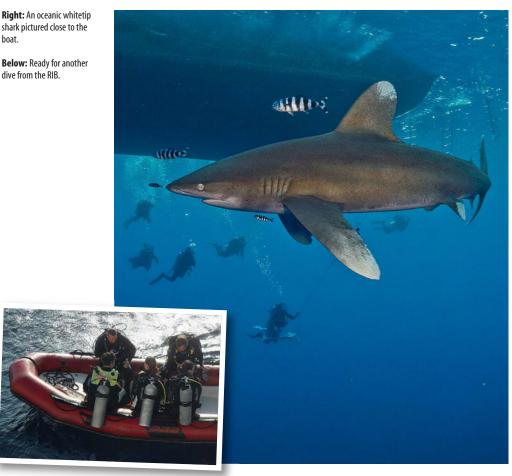
Elke Bojanowski is working towards the deeper scientific understanding of sharks needed to educate those who see sharks as a commodity or a danger to humans.

Identifying shark-movement patterns is one step on a long journey, but at the last count her Project Longimanus, now Red Sea Sharks, database had received more than 30,300 images and video clips from 821 contributing photographers, leading to 829 individual sharks identified.

* Project Shark: Red Sea weeks are now split by region: Best of Brothers, **Brothers & Elphinstone, Daedalus &** St Johns, Deep South and Simply the Best, with prices from £1095pp. blue o two also now offers Project Shark: **Maldives and from May Project** Shark: Galapagos trips, with Dr Elke Bojanowski or Nicola Weeden, www.blueotwo.com. Oceanic whitetip project, www.redseasharks.org

Right: An oceanic whitetip shark pictured close to the

Below: Ready for another







FLOODING?

NOT WITH THIS ACTION CAMERA!

micro HD+



32 GB +WiFi

Never Leak Technology

Full HD videos, 13 megapixel photos, compact, shock resistant, 100% waterproof, completely sealed, external battery compartment and data transfer and even easy to use: the Micro HD+ action camera is the ideal companion for all your outdoor adventures! Share your photos the built in Wi-Fi to connect with iOS or Android devices makes this camera especially fun to use. With the simple click of a button, download your photos and videos straight on to your smartphone or tablet.

RICH, COLOURFUL AND VIBRANT PHOTOS AND VIDEOS.







One of the most memorable TV sequences of 2014 was the amorous Japanese pufferfish building intricate sandcastles to attract mates in the BBC's Life Story.TOM **CROWLEY sourced the story that at first**

he had to prove was not an April Fool's joke

N 30 JUNE, 2013, a team of four – producer Miles Barton, cameraman Hugh Miller, camera assistant and safety diver Kat Brown and me, researcher and safety diver – set out in search of the Amami starry sky pufferfish (Torquigener albomaculosus). At this point, however, the pufferfish had yet to be named, and was barely known to science.

Almost a year earlier a marinebiologist friend had posted me a picture from a design journal showing a remarkably complex structure made from sand, and the small fish that was supposedly responsible.

If true, this would be the most

complex structure known to be built by an animal anywhere on the planet.

After reading around the story I was convinced that it was for real, but it was going to take quite a lot to convince my colleagues. I had emailed our team, who were understandably sceptical, but at the same time intrigued.

The story had been published around April Fools' Day, and it would be embarrassing to be taken in by a joke, so I spent some weeks trying to track down the scientists or the photographer.

It soon became apparent that the sand structures had first been observed off the island of Amami Oshima, which sits halfway between mainland Japan and Okinawa, by macro-photographer divers

swimming between sections of coral reef.
They had not expected to see anything on the open sand patches, and had no idea what had made them.

One of those divers was 72-year-old Yoji Ookata. Japan's version of David Doubilet, he had spent half a century diving and documenting Japan's coast

Unfortunately Yoji didn't speak much English, and my Japanese was nonexistent, so I took a punt and paid for

some emails to be translated back and forth to get the I needed.

I had to persuade my colleagues that the story was perfect for the **BBC** Life Story documentary series, which would loo<u>k</u> at the remarkable ways in which animals overcome the challenges of life.

YOJI HAD BEEN

OUT with Japan's natural history TV previous year, trying to document and identify what was responsible for the circles.

His team had pieced the story together through multiple short dives, and we got hold of a copy of the footage, which served as a very useful recce tool and showed the pufferfish

We watched the video, talked to Yoji

and started to hatch a plan for filming this little fish building its huge structure. Our main worries were its depth and size. Everything Yoji and the footage told us was that it was going to need lighting, it was potentially deep, the fish were tiny and we'd need a lot of time in the water to pull it off, not to mention some luck, because breeding season was also cyclone

We planned for the worst but hoped

Provided the fish was actually there, depth was going to be the key to making the sequence work. Anything below 21/22m would require us to start decodiving, and we would need to stay down ideally for two to three hours. Deco wasn't a problem as such, but would add extra complexity and logistical planning. Pictured: The extraordinary sandcastle built by an Amami starry sky pufferfish, which can just be seen at work.

Right: The architect and builder.



pufferfish building or tending a nest he would stay in a fairly similar place.

Once a nest was complete and the eggs had hatched he would start a new nest within 10m or so of the original, so all we had to do was find one and set up an underwater studio set with lights, jib (a small crane to move the camera around) and quadpod (a fourlegged stand for under-slinging the camera and getting it close to the seafloor). Finally, we constructed an A-frame to get the static top-shot that would reveal the structure's full majesty.

WE HAD GIVEN OURSELVES

23 days to film this story, doing two dives a day with three of us in the water, as this would also provide our "making of" story for the *Courtship* programme.

We were diving rebreathers, so Hugh and Kat had their Revos and I had my Poseidon MKVI. We had calculated that we'd need 31,500 litres of oxygen (about five 200bar J-cylinders) and 220kg of Sofnolime scrubber. Alongside our camera kit we had close to a ton of equipment and supplies.

Yoji and Toyo had already been on location for a few days and had located an active nest. The scientific paper outlined seven days of construction with mating on the seventh night and then another seven days of incubation before hatching on the full moon. We had planned to arrive at the start of the cycle, but a cyclone had thrown the fish off track, so the timings were all out.

This turned out to be a running theme for the shoot. After the first nest was abandoned there was a day on which nothing happened, and the fish was nowhere to be seen. Like clockwork, however, he was back the next day and had started to construct a new nest.

THE GREAT THING about being able to stay under water for three-plus hours was that we were able to observe in a single dive what had taken multiple dives before.

It turns out that the pufferfish is a prolific builder. If required he can knock out a fairly impressive sandcastle in a few hours, but with more time comes more intricacy and successful mating, so ideally he would get a full cycle.

ideally he would get a full cycle.

The seabed was of beige sand with few features and visibility was 20m or more but it was still rather disorientating, so we'd run a line and buoy out to where the male fish was constructing his sandcastle.

We had already lowered the quadpod, lighting rig and jib to the seabed a few days before to test it, and now we walked it out to the nest site.

It was easier to be a bit negative and take our fins off, walking the gear to the filming site 60m away rather than swimming, and it was quite a sight to see people wearing full-face masks with comms walking along the seabed like divers from some old sci-fi film.

Hugh and Kat assembled and tweaked the kit – with all the Allen keys and bolts it looked like IKEA furniture assembly but at 15m.

For three days we filmed the pufferfish constructing his circle at some speed.

Also,
the deeper
we went the less
light there would be
for filming, and the more
we would need artificial lighting.
With this in mind, Hugh had built
a buoyant lighting rig that would be
anchored to the seafloor, with six Keldan
Video 8s to act as a "little ray of
sunshine" should we need it.
We knew that once we found a male

MARINE LIFE

Dives were averaging three hours, and we'd get in two per day.

By the end of the third day, the middle of the circle was looking to be nearing completion. The fish had made fine wavy lines in the middle of the circle, the finishing touch before females would consider him a suitor.

At the end of the third day of filming, females had started to appear, and everything looked good for spawning the next morning. We were in the water shortly after dawn, but the circle looked completely different.

The wavy lines had gone, the male was no longer building and the structure was slightly degraded, yet the females were there and spawning!

We think the male mated with two or three females that day, and by 11am all the activity had dropped off. He was now tending the eggs and turning the substrate to oxygenate them.

It would be another seven days before he would start a new nest. We put this time aside for shooting some of the wide scenic shots and nice details that help to establish the location, as well as trying to get the super-big close-ups.

We had hoped to get three goes at filming the construction and courtship, but now we looked likely to get only two.

SO FAR WE HAD FILMED the behaviour of building the nest, cleaning the weeds, decorating the edges and grading the sand, but we hadn't managed to film the big top-shot and reveal it in all its glory. The behaviour was amazing, but it was finally seeing the sandcastle from above that would amaze the audience.

Unfortunately, while waiting for the next building cycle we were also watching a cyclone develop and start to track in our direction.

It hit five days later, and with building wind and swell we retreated to the safety of shore, and the pufferfish retreated to the safety of the depths.

There seemed no point in us hanging around either. The swell meant that bottom currents and wave action were pushing all the sand around. Any attempt to build would have been in vein.

After the cyclone passed it took another few days for the swell to drop and visibility to improve. Yojo, Toyo and I made recce dives every day, but either couldn't find any fish or else saw fish too deep and dark to match the existing film. All we could do was wait.

Time was running out, and it was apparent that we might not see this incredible spectacle ever again. We were leaving soon, and the decision was made to retrieve the kit and pack up ready to head home.

Having spent so much time focused on



one small patch of sand, we hadn't really looked around. Resigned to the fact that we wouldn't see the fish again, we decided to go for a dive before recovering the kit.

Hugh and I swam off, and the first thing we found was an enormous conch shell that had been vacated some time before. It was the size of my head and resembled a *morion*, a Spanish conquistador's helmet, and it was only right that we model it.

Putting it back after our fun, we



continued looking around. Then Hugh stopped, looking into the distance, and as I settled alongside him I saw to my disbelief a small male starry sky pufferfish in the very early stages of building a new nest, with only two days to spawning.

It seemed inconceivable that he would be ready, but he seemed to be trying his hardest.

The topside team had been listening in to our conversation, so were aware that something exciting was happening.

Our dive to recover the kit had now turned into our last chance of getting that top-shot. Back at the boat, we explained that there was a fish at 20m building a nest, and that we needed to get back in. **Above:** Vigil by the camera rig as the pufferfish completes its work.

Below left: Diversion with a conch – but it wouldn't be the end of the action.

Hugh and I headed back with the camera, but it was set up with a wide lens. The fish hadn't done much work yet, so we decided that at lunchtime we would change the lens to get close-ups. We figured we had at least a day or two before the nest would be completed.

How wrong we were! The thing with newly discovered animals is that they never obey the scientific paper written about them.

When we got back, the male had finished the circle, all the furrows were ploughed and the wavy lines were complete. Females were lurking.

While we'd been away, the fish had done seven days' work! We had missed the top-shot again.

WE CAME BACK the following morning to retrieve the kit, as we had a flight to catch and it was the end of the shoot. But it seemed that the male pufferfish hadn't got lucky. Though the nest was degraded he was still there, and when we arrived at the nest he had started to retill the sand, tidying up and decorating it.

Hugh got the camera on the top of the A-frame, and we waited for the perfect conditions. We dived for more than 4.5 hours on that last dive, walking up and down the slope and managing our bottom time to extend our filming time. This was a classic example of "on the last day the team got what they came for".

The pufferfish have been observed only on Amami Oshima island and in a couple of bays. I believe they may spend a lot of time in deeper, darker water, because they have very large eyes for their size, a common feature of deeper-water animals.

The fish are beige and very well camouflaged, so I think to find a mate the strategy is to come shallower where there is light, and construct a large "target". But how they came to be able to build such an elaborate structure is still unknown.

Filming the starry sky pufferfish will go down as one of the best, if not *the* best, experience of my life so far, and I'd love to go back again.







Bonaire

Grenada

Curaçao

Saba

Aruba

St. Martin

WE ARE THE SPECIALIST FOR THESE WONDERFUL CARIBBEAN ISLANDS.

They include islands that have been voted:

- ★ BEST SHORE DIVING IN THE WORLD
- ★ BEST WRECK DIVING IN THE CARIBBEAN
- **★** BEST SNORKELLING
- ★ BEST FOR UNDERWATER PHOTOGRAPHY
- ★ BEST LEARNER DIVER'S DESTINATION

We tailor-make holidays for divers and non-divers. We are the preferred tour operator – with exclusive rates – for many resorts on these islands. Contact us for a holiday quotation ...

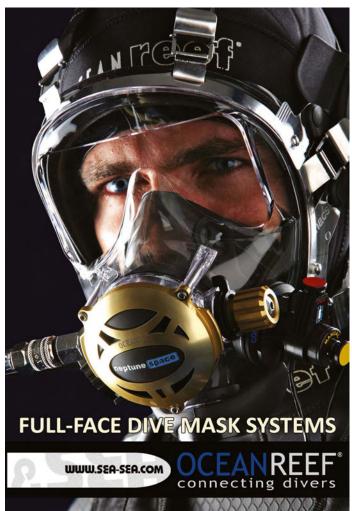
www.caribbeanfuntravel.co.uk

info@caribbeanfuntravel.co.uk • 01604 88 29 29











50 YEARS BEHIND THE LENS



The Underwater Photographer of the Year competition, reported in this issue, picks up a legacy that began in 1965 – but what challenges did competitive photographers face half a century ago? MIKE BUSUTTILI, who took part in that first

UK competition, casts his mind back...

HE SIXTH BRIGHTON Conference was held at the University of Sussex over the weekend of 16-18 April, 1965, sponsored and organised by BSAC's Brighton branch and DIVER's predecessor *Triton* magazine.

One of its big attractions was that it included the very first International Festival of Underwater Film.

Colin Doeg, later co-founder of the British Society of Underwater Photographers with Peter Scoones, is the diver who took the first photograph in British waters ever to win an open underwater photographic competition, and also the first photo in the world of a basking shark feeding.

Colin was British Underwater Photographer of the Year in 1968, and recalls what it was like

being an underwater photographer at the time:

"There have been two dramatic changes in underwater photography since the ground-breaking conferences at Brighton," he

says. "Back then it was a triumph to emerge from the water with a couple of recognisable images out of 36 on a roll of film.

"Today, as long as you have the wit to turn the tiny knob to A for Automatic, you're virtually assured that the resulting image will be technically correct. Whether it'll be any good photographically is a different matter.

"The other advance is that now you can check whether the image you've

just taken is any good just by looking at the screen on the back of the camera. That really is fantastic. It's the most marvellous learning tool you could ever have.

"Fifty years ago we never knew whether anything would even come out until we were able to process the film or get it done for us at a lab. An entire trip could be wasted if something wasn't right with your equipment or your photo techniques.

"Back then I used to process my films in a tent and wash them in the campsite washbasin. Well, the seven shillings and sixpence paperback that was my 'bible' said it was a good thing to process your films as soon as possible after you'd taken the pictures, so you knew if you were making any mistakes.

"Now all you have to do is stick the memory card in a laptop and, *voila*, there are the images.

"That's all very well, but today it's just as hard, possibly even harder, to take a winning image. Fifty years ago the challenge was to overcome the limitations of film and equipment, as well as the general diving conditions if you were working in the UK's cold and green waters.

"Most underwater photographers were divers who decided to try to take pictures so that they could show other people what the underwater world was like. Very few were photographers before they started diving, so they were starting from scratch. The first camera I owned was bought purely to put in a crude



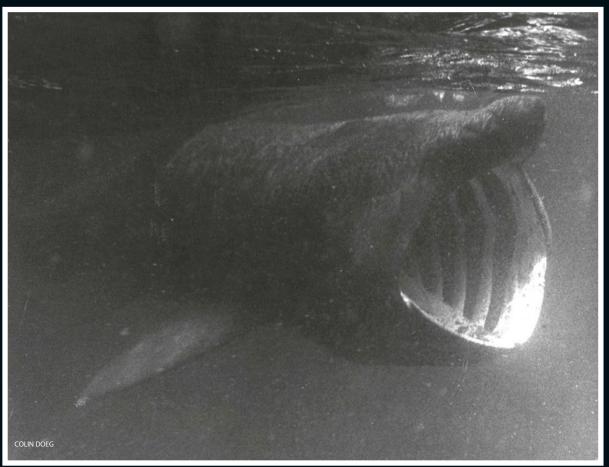
housing and take under water.

"A photograph I took of sunlight streaming through the strands of stringweed in Kimmeridge Bay remains the first image taken in British waters to win an open underwater competition.

"Furthermore, it's never been repeated in over 50 years – probably thanks to a quirk of the different glasses used in the lens and the port of a Rolleimarin.

"In those days we used to hump a Zodiac and an outboard engine down cliff paths to dive from remote beaches. Much more fun than Above: Rays of the Spectrum was taken some fifty years ago by Colin Doeg, this image was the first taken in British waters to win an open underwater competition.

Left: Colin Doeg.



Left: This was the world's first picture of a basking shark feeding. Unsure of the best exposure, Colin Doeg exposed one 36exposure film as the shark weaved backwards and forwards through clouds of plankton. He returned to the dive-boat and put another film in his Nikonos before exposing part of that as well - all in the space of an hour, as the other divers were eager to explore a nearby wreck before the tide turned. Later he processed the second film first to determine how to treat the first cassette - all in the washbasin of his hotel room.

boarding a RIB in a convenient harbour and then cruising along the coast to find a dive-site."

So many of the items of diving equipment we take for granted today had yet to be invented. Photographers may have been among the first to really appreciate neutral buoyancy, along with the possibility of being heavier or lighter to order.

The Fenzy ABLJ first saw the light of day in 1963, but was more easily available by 1965 and would become very popular among serious photographers.

Fortunately the average diver was still fairly lightly equipped and uncluttered, and made an altogether more svelte figure than today's typical diver.

Many divers were still using twin-hose regulators, which kept the bubbles away from your face, but the single-hose reg was steadily taking over.

Photographers in 1965 were looking for a housing for their favourite camera, and those with the appropriate skills were building one themselves.

In some cases the result would be a very reliable piece of engineering such as the Rolleimarin, designed around the Rolleiflex twin-lens reflex.

This gave a 6 x 6cm slide or negative, but only 12 shots before reloading. It gave great definition compared with a 35mm format camera, but was quite a weight to handle in the water.

In 1962 diving's finest had gathered in

London for a World Congress and CMAS Conference and there, hanging from the shoulder of Jacques Cousteau, we got our first glimpse of the Calypsophot.

This is where the revolution began that gave us a camera we could take on any dive or use under any conditions – the first real underwater camera, no housing required.

Even Rolleimarin users could often be seen with a Calypsophot as a back-up. It was soon to be replaced by the Nikonos, but the compact camera had arrived on the diving scene!

WHERE TO DIVE TO GET the best photos? It was difficult in 1965 to find dive operators in the Red Sea, or an affordable way of getting there.

However, Egypt's decision to nationalise the Philips factory there had created an opening via Philips's home country, the Netherlands.

The International Skindivers Association had set up a base on the island of Giftun Saghir, not far from Hurghada, and an inclusive two-week diving holiday was available for £80 each (£1416 in today's money). We just had to add £12 for a flight to Amsterdam.

The onward flight to Cairo was via United Arab Airlines DC6B, then we'd spend a couple of nights in Cairo before the minibus ride to Hurghada.

Our group of four from BSAC London Branch included Tim Glover and Geoff Harwood, who were also competitors in the Brighton competition. As far as we know, we were the only British divers on holiday in the Egyptian Red Sea in 1965.

We weren't sure what to expect, as the only available reading on diving there was based on the adventures of a certain J Cousteau, but we weren't disappointed, and soon got used to those warm, clear waters and the wonderful variety of colourful fish and coral.

There was a Colour Transparencies category in that 1965 Brighton photo competition, but with little press demand for underwater pictures in colour (four-colour printing was expensive), photographers had yet to show a major interest.

This is what Diver International magazine had to say about that first competition: "Many people in the audience were surprised at the judges' choice in the Stills section. Prizes were won by photos taken in swimming pools, aquariums and even by 'dark room' photographs. It was difficult to see what the judges were looking for. It was certainly not underwater photographs.

"Only one of the seven judges had any diving experience, let alone experience of underwater photography or filming. This showed to quite a degree in the results."

Today we can be confident that competition entries will be judged by some of the best and most experienced underwater photographers available.

Opposite, left: A Rolleimarin 1, which focused down only to 1m. To get close-ups, Tim Glover added a large condenser lens and enlarger and placed it outside the camera-case in the water. The close-up lens has strips of black Perspex stuck to it. The homemade 100-ioule electronic flash was triggered with a "dry" lead through a high-pressure air-hose. A standard 8mm movie camera floats above his left shoulder - Glover would make his entire camera cases float because if he lost it the boatman might retrieve it.

Right: Geoff Harwood holding a sea urchin cut up by Glover, taken with the rig shown. This was one of Glover's best-selling shots.

DIVER 278

PHOTOGRAPHY DIVER



Left: Geoff Harwood would become British Underwater Photographer of the Year in 1966, but his "System Harwood 1" from 1963 was his first try at electronic flash, using wet leads and a relay that had to be whacked on a rock after each shot because the contacts welded themselves shut! Above: Photography in UK waters relied on either finding close-up subjects or getting the widest angle. Hunters was taken with a Mk2, as the Nikonos and Calypsophot had 35mm lenses behind flat ports and weren't wide enough to get full-length divers in. This started Geoff Harwood on the Vizmaster trail of adapters for the Nikonos in the 1970s.



Top: Two divers, one without a wetsuit, descend an anchor-line. It was a difficult exposure to judge, so Colin Doeg worked his way through a 36-exposure film to obtain this image.

Above: Watching through the viewfinder of his Nikonos, Colin Doeg saw a shaft of sunlight fall on the back of this turning mullet and clicked the shutter to capture the moment.







Indonesia is home to some of the planet's best muck-diving, but as NIGEL MARSH and HELEN ROSE recently discovered in Sekotong, you can't beat exploring an area

pretty much unknown to the masses

and get immense enjoyment finding and photographing all the cute, weird and bizarre critters that divers find only in soft-bottom environments.

However, one thing we hate about muck-diving is crowds, and these can be a problem at some very popular destinations – too many divers, too many fins, too many pointy things poking the animals and too many *paparazzi*-like photographers elbowing fellow-divers out of the way.

So it was a wonderful surprise to find an incredible muck-diving site in Indonesia of which few divers had heard – the little known Sekotong, on the island of Lombok.

Never heard of Sekotong? Don't be surprised, because few divers would have. This area of Indonesia has only recently opened up to divers, with the arrival of a handful of resorts and dive operations.

One of those resorts is Cocotinos, a boutique 4* that caters for divers or anyone looking for a secluded holiday destination. Cocotinos opened its first dive resort in Manado in 2007 and a second in Sekotong in 2010, in an area known as the Gili Islands.

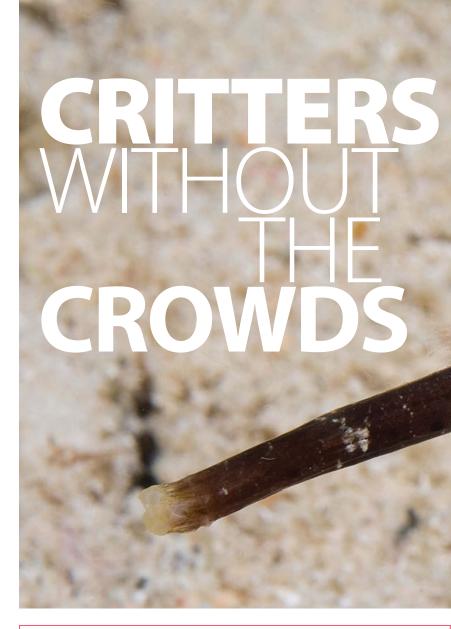
LOCATED IN THE SOUTH-WEST

corner of Lombok, Sekotong is in fact one of the easier destinations to reach in Indonesia, just a 20-minute flight from Bali or a slightly longer direct flight from Singapore or Kuala Lumpur.

Arriving at Lombok's Praya Airport we

Right: Something you don't see every day — a long-snout pipefish with a blenny hat!

Below: One of Odyssea Divers' boats, anchored up at Wills Beach between



WE ARRIVED IN ONE PIECE BUT WITH A FEW MORE GREY HAIRS

were met by Ketut, our driver from Cocotinos. He loaded our bags and embarked on a hair-raising 70-minute Lombok Grand Prix drive.

Ketut was an excellent driver, and the roads in Lombok are among the best in Indonesia, so we arrived in one piece but with a few more grey hairs!

The Cocotinos Resort is located in a three-hectare coconut grove and has its own private beach. We fell in love with the location as soon as we saw the view from the restaurant – a ring of distant mountains, a calm bay dotted with islands and clear water lapping the clean sandy beach. It was easy to see what had inspired the owners to locate their resort in this location.

We checked into our garden villa, placed our dive gear in the basket left at our front door and hit the bar for a few cool Bintangs while we soaked up the view and the relaxing atmosphere.

Next morning Syainal Hamid, the manager of Odyssea Divers, which runs the dive operation at Cocotinos. explained that a double dive was normally scheduled in the morning with a single dive after lunch, plus night dives on demand. Most of the dive staff are originally from Manado, which was a bonus, because they are experts at finding



DIVER 80)



resort, and when Syainal asked where we would like to dive our instant reply was Wills Beach, reportedly the premier muck-diving site in the area.

When the resort opened, well-known Australian underwater photographer and marine biologist David Harasti had been there to help the staff find good places to dive. A range of interesting sites were discovered during his stay, but he had raved most about Wills Beach, which he named after his son and compared to the

resort so we motored to Wills Beach, passing picturesque bays, little villages and numerous small islands.

We had been a little concerned about dive conditions before we arrived because Sekotong is located in the notorious Lombok Strait, a deepwater channel between Bali and Lombok.

The last time we had dived there was at Nusa Penida to see mola mola and manta rays, and we had experienced strong currents and cold thermoclines from upwellings.



Above left: A tiny Lembeh thecacera nudibranch on the sand at Kura Kura.

Above map: The variety of nudibranchs on display at Sekotong is impressive; one of the best was this sinuate ceratosoma.

We needn't have worried, however, because it seems that the waters off Sekotong are very sheltered, providing calm conditions and only gentle currents.

AT WILLS BEACH OUR DIVE GUIDE

Mamang gave us a quick briefing. Diving in the wet season the visibility was a little green at around 12m, but more than enough for macro photography.

We hit the sandy bottom at 6m,



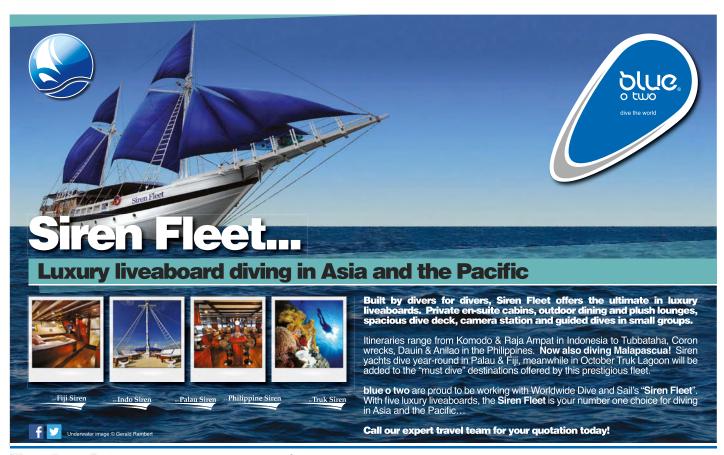
A CCR experience without equal

At Wakatobi, rebreather divers are not just accommodated, they are welcomed by a staff that understands the special requirements of the equipment, and in some cases, are CCR divers themselves. A supply of oxygen, diluent, and bailout tanks are available on site, along with ample stocks of sorb with oxygen fills to 206 bar, with helium available by advanced request.

Rebreather groups may be provided with dedicated boats to accommodate their extended profiles. Equally attractive as the support system is Wakatobi's marine environment itself, which offers profiles that are ideally suited to rebreather diving, along with a wide range of marine subjects that become even more accessible to those who dive silently.

Bring your rebreather and experience Wakatobi today. Learn more at www.wakatobi.com or email office@wakatobi.com





www.blueotwo.com/diver

tel: **+44 (0) 1752 480 808** email: info@blueotwo.com

















INDONESIA DIVER

out a coconut octopus, and then another wonderpus. We surfaced from this first dive amazed by the critters we had seen, and also amazed that we were the only divers exploring this incredible spot.

A few days later we returned to Wills Beach and explored a different section of the dive-site to find another great batch of critters, including shrimpfish, frogfish, ornate ghost pipefish and a long-armed octopus.

But this wonderful dive-site has also produced mimic and blue-ringed octopus, velvet ghost pipefish, crinoid shrimps, spiny devilfish, gorgonian shrimps, gurnards and Ambon scorpionfish.

Mamang also told us about dugongs he had encountered here – apparently they feed on the seagrass beds in the area.

Odyssea Divers has around 20 divesites it visits regularly, but only a handful of these are muck-sites. Most are reef dives, so for our second dive we explored one of these reefs at Rangit Barat.

The visibility was a little better here, at around 15m, and the coral reef was very pretty, covered in soft corals, sponges, sea-whips, gorgonians and ascidians.

There were also plenty of reef fish and invertebrates to be seen, though not many big fish, apart from the odd passing pelagic. But for us the rubble at the base of the reef provided the most interest,

Above: Perhaps bored by the attention, a painted frogfish yawns for the camera at Rangit Barat.

Left: That weirdest of octopuses, the shape-changing wonderpus.

Below: Yellow velvetfish at Kura Kura.

Bottom: Early morning view from Cocotinos Resort, overlooking the bay at Sekotong.

and straight away our attention was drawn by a juvenile blue razor wrasse. These lovely fish with their sail-like dorsal fin are always difficult to photograph because they dive into the sand as soon as you get anywhere near them, but this one was content to pose for our cameras.

For the next hour this site produced a bonanza of muck critters – cuttlefish, snake-eels, jawfish, filefish, sea-moths, boxfish, flatworms, pufferfish, soles, mantis shrimps, commensal shrimps, spider-crabs, gobies, blennies and many more.

We explored the sandy slope to 20m, seeing huge soft corals and sea-pens sprouting from the sand, plus numerous anemones that were home to shrimps, porcelain crabs and anemonefish.

We couldn't believe how many species of shrimp gobies resided on this sandy slope; we counted around a dozen, including a few we had never seen before.

We were also impressed by the nudibranchs, which were feeding, mating

and laying eggs, and again included many species new to us.

But Mamang saved the best until last. Working our way back into the shallows, he suddenly found us a wonderpus.

We were overjoyed; this was our first wonderpus. We fired off countless images as it slowly strolled across the bottom changing shape and colour.

Several minutes later Mamang pointed



WE WERE OVERJOYED – THIS WAS OUR FIRST WONDERPUS

because here we saw mantis shrimps, blue ribbon eels and two lovely painted frogfish.

Over the next few days we dived more of these pretty reefs off Sekotong. The corals were lovely and would have looked good in wide-angle images, but with the vis varying between 10 and 20m in the wet-season conditions, we stuck to macro photography.

We were very pleased we did, because each of these reefs seems to have its own special critters. At Rangit Timur it was zeno crabs, dragonets, banded pipefish and Bargibant's pygmy seahorses, while at Sunken Reef it was harlequin shrimps and whiskered pipefish.

Whip Reef hosted some very bizarre nudibranchs, while Gili Gede was a good spot for orangutan crabs, hairy squat lobsters, morays and juvenile batfish.







But as good as the reef diving was, it was still the muck-diving that we most enjoyed, especially the afternoon dives at Kura Kura and Odyssea 3.

There is coral and weed off the beach in front of the Cocotinos Resort that provides interesting snorkelling but they rarely dive this area, so these two sites are regarded as the house reefs, especially as they are only minutes away by boat.

Odyssea 3 has a steep rubble bank with patches of weed and corals appearing from time to time. We saw many common muck critters there – mantis shrimps, cuttlefish, upside-down jellyfish, snake-eels, commensal shrimps and shrimp gobies – but also spiny devilfish, hairy shrimps, two-spot lionfish and many unusual nudibranchs.

But always on the look-out for animal behaviour, the highlight for us was finding a pair of fighting wrasse. These fish were having quite a battle, their jaws locked and flinging each other about. They were so engrossed in the fight that we were able to get quite close for photos.

We would have loved to know what the fierce battle was about – territory, food, breeding rights? – but in the end the cause remained a mystery.

Kura Kura proved to be almost as good as Wills Beach and has a variety of muck terrains – sloping sand, coral rubble, weeds, rocks and patchy coral.

Nudibranchs, cuttlefish, shrimps, crabs and juvenile fish were all common, but it

was the weird and wonderful fish that made this site special for us.

The first time we dived there we saw two Ambon scorpionfish, several longsnout pipefish and a cockatoo waspfish, while on a return visit it was a tiny juvenile barramundi cod, a lovely

yellow-coloured velvetfish, and a tiny blenny perched on the head of a pipefish.

We may have had only four days of diving at Sekotong but we left the area impressed by the wonderful Cocotinos Resort and the incredible muck-diving.

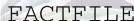
We only hope that this area remains a little undeveloped paradise, so when we return we can once again enjoy the critters without the crowds.



Above: There were a surprising number of zeno crabs on the reef dives at Sekotong.

Above right: Rangit Timur is home to several Bargibant's pygmy seahorses.

Below: Jaws locked together in battle, a pair of wrasse fight it out at Odyssea 3.



GETTING THERE >> Fly Singapore or Garuda from the UK to Lombok. It is also possible to arrange flights or a ferry to Lombok from Bali if holidaying there.

DIVING & ACCOMMODATION >> Odyssea Divers run the dive operation at Cocotinos Resort, www.odysseadivers.com Accommodation options are limited in the area, with the Cocotinos Resort the best option for divers, www.cocotinos-sekotong.com WHEN TO GO >> Year-round. Water temperatures range from 26-29°C and the best visibility is from June to October, but some of the best critter action is during the wet season, November to April.

CURRENCY → Indonesian rupiah.

HEALTH >> Nearest deco chamber is in Bali. Dengue fever and malaria cases have been reported, but mainly during the wet season.

PRICES >> Return flights from London from £720. Cocotinos Resort has rooms from £60-200 per night, which includes breakfast, while dives with Odyssea Divers cost around £25 each. Package deals with accommodation and diving are available.

VISITOR INFORMATION >> www.indonesia.travel



New! A Q U A T I C S Frameless 2 The mask that is all about

The mask that is all about fit, comfort and vision.





- Dual elastomer silicone skirt with "UltraSoft" faceseal for superior comfort and fit.
- Optical quality "UltraClear" lenses.
- Frameless design is simple, hydrodynamic and leak-free.
- Low volume yet extremely large viewing area.
- Squeeze-to-adjust buckles.
- Clear or black with color accents.
- Folds flat to fit in a pocket or traveling.
- 3 fit sizes: Standard, Medium and Large.

Atomic Aquatics Europe GmbH

www.atomicaquatics.co.uk





The Diving Holiday Specialists since 1988

01353 659999 www.regaldive.co.uk









FARTHEST-FLUNG EUROPE

El Hierro, the smallest of the Canary Islands, gets full-feature treatment in DIVER next month, but in the meantime you may like to know that Oonasdivers is offering week-long trips to this volcanic island where year-round sea temperatures of 21-24°C help to make it something of a haven for marine life. It is also noted for very clear blue waters and a sheltered marine reserve.

You fly to Tenerife on a
Saturday and proceed by ferry to
El Hierro next day, staying in a
self-catering seafront apartment
in La Restinga, near the dive
centre and Europe's most
southerly drinking spot, El Bar.
Guiding starts from Tenerife
airport and continues into the sea.

You get two dives a day for five days with El Submarino dive centre, visiting any of 27 dive-sites a 10 minutes' or so RIB ride out. Prices from £650 include flights, transfers, seven nights' accommodation and diving.

>> www.oonasdivers.com



The Maldives is known for the high quality of seamanship of its boatcrews, but to our knowledge it has not seen a woman as captain of a dive-boat before. Aishath Rizuna, or Rizu, has changed all that after being trained to take up that role at the 5* Kurumba resort in North Male Atoll.

Rizu was born and raised in Funadhoo, Shariyani Atoll, and her

father, a fisherman, had taught her how to drive a small boat by the time she was four. She has been working at the resort for the past three years but now joins the team of 12 male captains based at Kurumba.

Kuoni offers seven nights with breakfast at the resort in a deluxe room, including flights with Sri Lankan from Heathrow and transfers, from £1199pp (two sharing, quote "AL0032" on booking), or 10 nights in a superior room with breakfast, flying with Etihad, from £1399pp on selected dates in May and June, a saving of up to £824 per couple (quote "IO0020").

A five-dive package starts from US \$402 including taxes.

www.kurumba.com, www.kuoni.com



Sharktastic price drop

Prices for a seven-night Maldives
"Sharktastic" trip on the Emperor Atoll
liveaboard now start from £780 and
include six days' diving, all meals and
refreshments, 17 dives (including one
night dive, free nitrox and airport
transfers. Flights are not included.

www.maldives. emperordivers.com



All for \$44,000

Purnama, Alila Hotels & Resorts' liveaboard, takes guests around Raja Ampat and the Komodo Islands, and its Captain Mario Gonzalez has now issued what he calls his insider's guide to Indonesia's best diving.

His selected sites include Gili Selang off east Bali; Shotgun and Castle Rock at Gili Lawa Laut, Komodo; and Kri and a night dive in the Waigeo Pearl Farm, Raja Ampat, and he certainly makes them sound exciting.

Alila reckons the 46m, three-deck *Purnama* is the most luxurious *phinisi*-style liveaboard in Asia. It takes up to 10 guests in four air-conditioned cabins with queen-size beds and *en suite* bathrooms, and a master suite with 270° views. From October to March, it sails the Raja Ampat Voyage, while its Komodo Island Expedition runs between May and September.

Get together with nine other likeminded divers and you can obtain a private charter. Five days from US \$44,000 covers meals, unlimited dives, water activities and shore excursions.

Or book for two sharing a suite sixnight Raja Ampat Limited Edition voyages start from \$12,750.

>> www.alilahotels.com

DeLoaches back on the hunt

The Lembeh Fish & Critter Hunt hosted by US divers Ned & Anna DeLoach has become an annual event at Eco Divers Resort in Lembeh, Indonesia and although it doesn't take place until October and November, early booking is advised.



If the names are familiar that's because the couple are co-authors of some of the most popular marine identification field guides, so their advice is much valued. But there is no extra charge to guests for these week-long workshops on reef fish and invertebrate identification, behaviour and underwater photography and videography.

"Plenty of diving, discovery and underwater fun, plus nightly presentations" is promised by the deLoaches for the two weekly workshops between 31 October and 14 November. "We guarantee that after spending an energising week of fun and learning with a group of like-minded friends, diving will never be the same!"

The price of US \$1347pp includes seven nights' full-board accommodation (two sharing), six days of boat-diving with up to three guided dives daily (on air), workshop, transfers and taxes. You pay for flights, night dives and nitrox if required. www.eco-divers.com

www.eco-divers.com



Dive-tour operators are dead keen on the Azores at the moment, as these nine mid-Atlantic islands remain a largely unfamiliar option for UK divers but within four hours' flying time.

The meeting of nutrient-rich northern currents and warmer Gulf Stream waters also attracts animals such as dolphins and blue sharks.

Regaldive is offering trips to the

mountainous island of Pico to encounter blue sharks at Condor Seamount, and says that manta and sting rays, morays and grouper can also be encountered there, while another seamount, Princess Alice Bank, can bring sightings of devil rays, barracuda and tuna in their thousands.

It also has trips to three other

islands, Sao Miguel, Terceira and Santa Maria during the May-October diving season and says the islands are well suited to twin-centre combinations.

Prices start from £699pp for a seven-night package including return flights, B&B (twin share) and transfers. Diving starts from £125pp for a four-dive pack.

www.regaldive.co.uk

FAMILY TIME IN CRETE



Kalypso Rock's Palace dive centre sits on the Karavos coast in the centre of south Crete, with access to sites that include a sheltered fjord which it says allows daily diving whatever the weather. Accommodation is available at the 4* Kalypso Cretan Village hotel resort to which it is attached.

For experienced divers the centre offers house-reef dives and boat trips to explore drop-offs, caves and "rich

flora and fauna", but it has also developed a programme for families to discover the underwater world "step by step" by scuba or snorkel, in a "relaxed and enjoyable" atmosphere.

Six-year-olds can join the snorkelling programme and 10-yearolds the diving. A six-dive pack costs 170-190 euros and a PADI Open Water referral starts from 235 euros.

www.kalypsodivecenter.com

Deep wrecks in Malta

On the wreck-diving expedition calendar the name Jack Ingle Technical Diving crops up regularly, and Jack plans to be back in Malta this November diving more WW1 and WW2 sites in the 40-70m range, such as HMS Stubborn (below), HMS Southwold and Le Polynesien.

Your £630, if you choose to spend it, buys you five days' boat-diving, a self-catering apartment, group vehicle hire, transfers, air and hire of twin-sets (or rebreather cylinders) and a manned deco station. Nitrox, helium and stage deco cylinders are extra, as are flights (around £180).

>> jack@jackingle.co.uk



NET EFFECT IN BORA BORA AND TAHITI

Netflights is offering a 10-night French Polynesian holiday in Bora Bora and Tahiti from £3049pp, which it says represents a saving on standard prices of £890 per couple. Included are six nights' B&B at the Sofitel Bora Bora Marara Beach Resort in a superior garden bungalow and four nights' room-only at the Radisson Plaza Resort Tahiti in a deluxe oceanview room. The price also covers return flights from London with Iberia and American, internal flights with Air Tahiti and return resort transfers.

▶ www.netflights.com

WELL AND TRULY TESTED



If you want the best, you have to pay, but how can you be sure that it is the best before parting with your cash? By reading a long-term report by NIGEL WADE, that's how!

REGULATOR ATOMIC AQUATICS **T3**

REGULATORS THAT HAVE PASSED THE

stringent tests required to be awarded European approval and gain the CE mark all deliver gas in a similar way. I've found them to breathe smoothly, with the minimal cracking pressure required to open the valves allowing for resistance-free inhalation and exhalation.

Indeed, regulator performance is so good and similar across the varying brands and models nowadays that, to be honest, testing them had become a little boring.

That is, until last March, when I took delivery of a set of regulators from America. I had parted with a substantial lump of hard-earned wonga to own the flagship in the Atomic Aquatics range – the model is the T3 (the "T" stands for Titanium).

I was under the impression that all approved regulators had become more or less equal, but after diving with the T3 over a period of nearly a year, my opinion has changed.



The T3 under water.

Titanium Alloy

What is titanium and what are the advantages and disadvantages of using it to make diving regulators?

Titanium alloys are metals containing a combination of titanium and other chemical elements – in the most common it is mixed with aluminium and vanadium (Ti-6AL-4V). This metal has an extremely high tensile strength, is very light in weight and has extraordinary corrosion resistance, especially in sea water.

The disadvantage is that it is difficult to produce and fabricate, so it's an exotic material that's very expensive.

The First Stage

Expertly machined and crafted from a solid billet of Ti-6AL-4V alloy, the first stage is the standard jet-seat high-flow piston design found throughout the entire range of Atomic's regulators. The turret has a lower section that swivels, with four low-pressure ports around the circumference and a fifth at the tip; two high-pressure ports are set either side of the fixed barrel.

The first stage is factory-sealed for freeze protection and to prevent external contamination from sand, silt or salt crystals. It's also compatible with the use of non-dedicated nitrox mixes up to 40% and is available with either international (232 bar yoke) or 300 bar DIN connectors.

The Second Stage

The main body of the second stage is constructed using lightweight, high-grade polymers with internal components precision-

machined, again from a solid billet of titanium.

As throughout the range, the T3 second stage is fitted with Atomic's seat-saving orifice. This clever, patented design lifts the valve away from its seat when the regulator is dormant, ensuring that it doesn't become engraved to prolong its life.

A single adjustment knob for rapid detuning and the maker's patented automatic flow control combined with the T3's new high-flow second-stage case is said to significantly reduce the breathing effort at all depths.

A titanium, PVD-coated anatomical swivel is fitted to the second-stage hose joint to reduce restrictive head movement. The entire front cover is made from flexible polymers and is used to purge the regulator. It's finished with a PVD-coated titanium cover ring.

The mouthpiece is created from soft dual silicon with tough, tear-resistant bite tabs.

First Impressions

The first thing I noticed when I unpacked the T3 was how light it was. It didn't have the "heft" I was used to with most of the regulators I've owned or tested in the past. It was comparable in weight to the tiny mainly plastic models designed and built specifically for baggage-limit-conscious travelling divers.

On closer inspection the amazing build quality, attention to detail and design innovations were obvious. The DIN fitting has cut-outs resembling a modern-day six-spoke alloy car wheel, and it span on its connecting tube like silk on satin.

The first-stage turret was a thing of beauty too, showing the fastidious finish that only zero-tolerance machining can leave on the titanium

alloy. Every port-blanking plug is made from the same lightweight metal.

A rubber "bump pad" is fitted to the top of the first stage to prevent sharp edges coming into contact with the diver's cranium.

The second stage is equally impressive, with its shiny blackened swivel at the junction of the valve and hose, again moving with a silk-onsatin feel. The all-black cover with artistically sculpted vents fitted with high-gloss inserts and the PVD-coated titanium retaining ring screamed understated class, inviting me to take a second, longer look.

I was surprised at first by the intermediate hose, of traditional rubber with a large bore. My initial thought was that it should have been a modern braided, lightweight version in keeping with the weight-saving theme

Then I realised that it was there for a reason to deliver the gas between the two stages with the minimum of resistance, keeping the whole breathing operation as smooth as possible.

Under Water

The Atomic T3 has been my ever-present companion on numerous trips ranging from the Middle and Far East to the Caribbean and east Atlantic. I've used it on dives down to 50m and taken it scallop-hunting and wreck-diving in the UK too. Every time I take it under water I marvel at its performance. The differences

SPECS

PRICE → T3, £1189. Ti2 octopus £210

FIRST STAGE >> Jet-seat piston

PORTS → 5lp, 2hp

CONNECTIONS >> DIN, A-clamp

SECOND STAGE >> Pneumatically balanced

poppet with seat-saving orifice.

WEIGHT → 771g

CONTROLS >> Automatic flow control (AFC),

rapid-adjustment knob

NITROX → EAN 40%

WARRANTY → Limited lifetime (not contingent on proof of purchase).

SERVICE INTERVAL → 3 years / 300 dives

EXTRAS >>> Padded carry-case

CONTACT >> www.atomicaquatics.com

DIVER GUIDE *******

between the numerous models I test may be subtle, but the T3 edges them in every department

The breathe is as near to natural as I've experienced from mechanical breathing apparatus. The weight, hose-routeing options, exhaust-bubble dispersal, resistance to freeflow, watertightness, purge and comfort all combine to make the T3's performance outstanding, possibly the best there is and definitely the best I've used.

The Price

Invariably the very best products come with a cost penalty, and the T3 carries a price tag that would make the Sultan of Brunei choke on his morning coffee.

It's difficult to justify spending well over a grand on a set of regulators when you could get an excellent alternative for a third of the price. but there are advantages to consider.

The weight-saving is a big factor for frequent flyers. The T3 also boasts a three-year, 300-dive service interval, and if you combine this with the outstanding toughness and corrosion-resistance of the titanium alloy the T3 could conceivably last a lifetime, saving you hundreds of pounds in service costs as the years roll by.

Conclusion

I'm one of those annoying people who get a serious buzz from owning and using the very best dive-kit available. The T3, nearly a year on, still gives me that buzz, and every time I dive with it I feel that stripping out my life-savings to own it was justified.

Atomic Aquatics has labelled the T3 "the Ferrari of regulators". I beg to differ. I think it's more functional and less flamboyant than that.

It's more like an Aston Martin, subtly goodlooking, designed for performance, built to perfection and, in my eyes, the very best there is.



PHOTOGRAPHERS HAVE BEEN SHAPING

light to enhance their images since the days of the Box Brownie camera, and underwater shooters have been using simple coned tubes called snoots to create a narrower beam of light from their flashguns for almost as long.

Over the years the use of snoots fell out of vogue. Then, in 2009, talented Canadian underwater photographer Keri Wilk started to experiment with the use of snoots and modern housed digital cameras.

His first renderings were home-made, using plumbing fittings and old Biro bodies held together with gaffer tape. The results were images that displayed his subjects beautifully isolated in spots of light against black backgrounds.

Keri's images took the underwater photography world by storm, and the good old snoot became fashionable all over again.

Modern snoots have become very hi-tec, none more so than the latest light-shaping device from Slovenia-based Retra Underwater Technology. Photo guru Alex Mustard generously lent me his to try out.



The main reason for using a snoot is to isolate the subject, putting it in a spotlighted pool of light as if it was on a stage. Snooting allows the strobe light to be projected directly where you want it, which also helps to eliminate distracting negative space. By using fast shutter speeds and small lens apertures, you can render this background black, even in bright daylight.

Another advantage of using snoots is that they decrease the beam angle, making it easier to control stray light and minimise backscatter.

Also, the light can be directed onto the

subject in such a way as to dramatically emphasise textures, giving a creative feel to the final image, and they can be used behind the subject for backlighting.

The Early Days

When Keri built his first snoots they were simply tapered tubes that funnelled light by blocking it from the strobe until a small illuminated







From left: Largest to smallest aperture of the Retra LSD mask card.

point remained. The strobe had to be positioned with the tip of the snoot very close to the subject, so the point of light was kept to the desired size, and also remained bright.

The big drawback with using these tube-type snoots was that they restricted the light and wasted most of the strobe's output.

Indeed, Keri had to shoot at night to reduce the chance of bright ambient light overcoming the snooted strobe light.

The close proximity of the snoot tip also meant that subjects were limited to those that didn't spook easily, or were very slow-moving. What was needed was a device that didn't do this but would instead focus the light-beam into an even column, thereby increasing the output and working distance. Enter Retra's LSD.

The Design

Retra's light-shaping device consists of three components. The first is a light-collector, which gathers the light from the strobe with minimum loss using polished reflective surfaces.

The second component is a tubular housing fitted with internal lenses to project the light in a column onto the subject.

Lastly, there are the light aperture masks, which slot behind the lens barrel and determine the size and profile of the light beam.

The LSD fixes to the strobe face with a clamp, which is part of the light-collector and is "strobe-model specific". Retra has various options to cover the most popular makes and models of flashoun.

The light-collector is made of polycarbonate

SPECS

PRICE >> 343 euros, spare mask set
(four pieces) 29 euros, advanced mask set
(10 pieces) 99 euros
STROBE COMPATIBILITY >> Ikelite, Inon, Sea &
Sea, Seacam, Subtronic
WEIGHT >> 700g
FOCAL LENGTH (IN WATER) >> 175mm
BEAM DIAMETER (IN WATER) >> 60mm
WARRANTY >> One year
CONTACT >> www.retra-uwt.com
DIVER GUIDE ** ** ** **



and comes in two models, clear or black, the latter being the version used on test.

The lens housing is made from anodised aluminium with O-ring-sealed polycarbonate lenses. The complete LSD has a body length of 215mm, weighs in at 700g and is depth-tested to 6 bar.

Each mask card has different-sized apertures of the same shape. Four cards are supplied with differently shaped apertures, from squares to diamonds and circles to twin pin-pricks, for possibly illuminating just a pair of eyes.

In Use

I took the LSD Prime on a trip to the Maldives, knowing I would find plenty of suitable subjects. It seemed an ideal opportunity to have a go at producing the kind of images with which Keri had wowed the world.

I set my camera up with a 105mm macro lens and clamped the LSD to an Inon Z240 strobe. Finding a small blenny in a hole in the coral, I set the strobe distance and direction using a tiny stone about the same size as the fish and, once the camera was focused on this point, set it to manual focus.

To shoot the blenny, all I had to do was rock the camera gently backwards or forwards until the little fish was sharp in my viewfinder and pull the trigger, in the knowledge that the snoot was aimed to illuminate it perfectly.

Well, that's the theory. In reality it took the best part of 20 minutes to get the snoot aimed in combination with the right focal distance. The reason for this was that I couldn't see the aiming light from the strobe on the stone, because the bright ambient light from the sun overcame it.

When I had eventually achieved the settingup process I accidentally nudged the strobe arm as I was getting into position in front of the blenny. Doh! I'd have to start all over again.

It took a whole dive to get a couple of out-offocus, poorly lit shots. I tried again on other dives but got increasingly frustrated by my shortcomings. The snoot was proving difficult for me to use.

The answer was to dive a little later in the day, making it easier to see the aiming light. In darker conditions it worked like a dream, and I was able to get some useable images of a sexy anemone shrimp highlighted in a small pool of light.

Back home in my studio, I set the snoot-andstrobe combination up to shoot a small toy to demonstrate its capabilities for this test, and found it a doddle to use.

Targeting the strobe by hand while actually in front of the subject was by far the easiest method, but only because I could clearly define the aiming light through the camera's viewfinder.

Keri used to mount his snooted strobes on a gorilla-pod rather than the camera, meaning that once set he could move about with his camera to get the best angle of view. I didn't try this, but it makes perfect sense.

Conclusion

Although I made a hash of the tests, it was apparent that all I needed was a little more practice, a lot more patience and a better understanding of the technique required to get the most from this simple if (for me) frustrating bit of kit.

The Retra Prime LSD is a well thought-out and beautifully crafted photographic accessory. In the right hands I know that it's capable of delivering the goods – the studio session proved that to me.

I'm also acutely aware that I should get one to add to my own photographic arsenal, and spend time perfecting the skill needed to get the most from it. The results from those who have mastered this genre of underwater photography have been astounding, and I don't want to be left in the dark ages.

DIVER 90 WWW.DIVERNET.COM





MARES **EOS RZ**

THE LED REVOLUTION CARRIES ON

UNABATED. Clever scientists, designers and engineers continue to invent and produce smaller light sources with higher outputs and needing less power.

The marketplace seems to be flooded with these "new-generation" lights. This gives the consumer a huge choice and cuts prices.

Italian gear giant Mares took advantage of this high-quality, lower-cost technology when it first introduced its EOS range of underwater torches. The originals have recently been upgraded, with lamps that use a dedicated rechargeable power source and have adjustable light beams.

The new range is prefixed RZ, which stands for Rechargeable Zoom.

The Design

There are four lamps in the new EOS RZ range, and all have the same features but differ in size, output and burntimes. The bodies are crafted from marine-grade anodised aluminium alloy, finished in a dark metallic silver colour.

The switches are external and magnetic, which means they're sealed from the internal components, helping to protect the lamps from flooding. Each switch has four functions, on/high, low, flash and off.

Illumination comes from Cree LED chips, which vary in type and number depending on the lamp model. Single, dedicated rechargeable li-ion batteries supply power and are charged with the battery in the lamp body via an inhouse USB connection, which is accessed by removing a double O-ring protected screw cap.

A small LED light that shows red for charging and green when the charging process is complete indicates the charge status.

Although outputs and burntimes vary for each model, they all deliver light at a colour

temperature of 5700K with adjustable beam angles that range from 12° to 75°.

They are depth-rated to 120m, and come with a wrist lanyard.

In Use

I took the smallest EOS 2RZ model as a back-up and the largest EOS 12RZ as my primary light on a Caribbean trip to see how they performed.

The smaller of the two delivers a claimed output of 220 lumens on full power and 60 on low from a single Cree XPE LED chip that is said to burn for 180 minutes on its lowest setting.

The EOS 12RZ has three Cree XP-G2 LED chips that collectively deliver 1200 lumens on full power and 300 on low, with stated burntimes of 120 minutes on full power and 300 on low.

The switching process was simple – a single forward push of the sliding magnetic switch turned the lamp on at full power; if I pushed it again within 10 seconds it switched to low, and then again within 10 seconds to a flashing mode. This, I'm assured, is the SOS mode, and not designed to make everything seem as if it's moving in slow motion.

If the switch is left untouched for longer than 10 seconds the next push switches the lamp off, and it required me to scroll through the settings again to get to the desired mode.

By rotating the lamp-head, the light beam could be tightened or widened. This is achieved by the LED head and reflector moving away or towards a small lens fitted to the glass face.

The widest setting delivered an even, soft pool of light and the tightest a narrow,

penetrating beam. On both lamps, anywhere between these settings a darker spot of light was clearly visible in the centre of the beam, with a brighter halo surrounding it.

The Mares range of EOS RZ lamps

Under water during the day the 12RZ worked well with the beam set at its narrowest.

I was able to look under shadowed overhangs and into dark crevices to spot small creatures hiding away, and the bright 1200 lumens overcame the ambient light, revealing the true colours of coral, sponges and fish.

After dark on a few night-dives the torch



came into its own. On low power and the widest beam it lit my way without destroying my night vision, and at this setting was ideal for illuminating my instruments. It didn't send the local wildlife scurrying away with their fins over their eyes.

With the beam set at its narrowest and the lamp on full power, the 12RZ was at its best. The tight beam didn't light suspended particles at its periphery and cut through the water, ending in an even spot of light on my chosen target.

I did try the flashing mode, but quickly became aware that it was inducing vertigo, as my mind tried to make sense of what looked like a nightclub scene.

SPECS

PRICES >> 2RZ £89, 4RZ £113, 7RZ £137,
12RZ £178.

MAXIMUM OUTPUT (LUMENS) >> 2RZ 220, 4RZ
400, 7RZ 700, 12RZ 1200.

COLOUR TEMPERATURE >> 5700K
BEAM ANGLE >> 12-75°

SETTINGS >> High, low, flash, off
BATTERIES >> Single rechargeable li-ion
CHARGING >> In-house, USB connection
CONTACT >> www.mares.com
DIVER GUIDE ** ** ** ** **



I switched modes and got on with my dive.
The lamps were very tactile in use. The
knurled finish on the main body had a nice feel
and was easy to grip, and the rubber around the
lamp-head provided a slip-resistant surface
when zooming.

Burntimes

After the trip I put all four lamps through my hitec, real-world, burntime measurement system. OK, I threw them in my yellow plastic bucket of water, with a stopwatch to time their durations.

Rather than bore you with the multiple results I can summarise by telling you that they all fell short of the maker's claimed durations, but not by much.

The biggest difference was with the 4RZ. Its claimed times are high 150 and low 480min, and it actually died after 135 and 445min.

The nearest was the 12RZ, which gave up the ghost within five minutes of both its stated times. This isn't an exact science, because li-ion batteries seem to have a mind of their own with regard to discharge rates and vary, sometimes considerably, from test to test and day by day.

Conclusion

Mares EOS RZ lights are made to a high standard and have some nifty features. The zoom function is useful and has practical advantages. I found that to get the best-quality beam it was necessary to use it at its widest or narrowest setting – anywhere between substantially degraded its quality.

The USB charging system is a great addition to any torch because you don't have to own a dedicated charger – a smartphone plug or computer is all that's needed.

The only real disappointment with all these lamps was the lack of a proper lock to stop them being accidentally activated.

The rear end-cap needed to be removed to disconnect the batteries, leaving the main twin O-rings exposed.

There's no doubt that these all-metal underwater lamps will prove a popular addition to divers' kit-bags, because they're good-quality products that deliver decent performance and represent great value for money.







UNTESTED

The latest kit to hit the dive shops



Sea-Sea YS-03 Strobe Head 4444

Sea and Sea has released its latest underwater camera strobe, the YS-03. It has been designed as a simple-to-use DS-TTL-only model for new underwater photographers using compact-camera sets, and the only control is a power on/off switch at the rear. The YS-03 is compatible with camera systems featuring pre-flash and a TTL flash exposure function, regardless of make. This strobe head costs a little under £330.

www.sea-sea.com



Waterproof D9 Breathable Drysuit >>>>

Swedish exposure-suit maker Waterproof has released a light drysuit intended for travelling, tropical-diving or snorkelling. The D9 Breathable is made from a lightweight quadlayer fabric with a breathable membrane combined with ultrasonic welded socks, and is said to be easy to fold and transport. It weighs in at around 2kg and comes with suspenders, low-pressure hose and a lightweight bag. Waterproof stresses that this product, priced at £995, is not suited for the rigours of advanced or technical diving, but for more delicate use.



Mares Cruise System Bag

Mares says that its Cruise System is a sophisticated total storage solution for a full set of dive equipment. The ventilated, wheeled 122-litre-capacity bag is supplied with universal hangers, designed to enable dive gear to be rinsed and dried while still inside the bag. The Cruise System also features a detachable strapped mesh bag, attachment options for horizontal or vertical fixing, modular expansion and a telescopic handle. The bag measures 51 x 31 x 79cm, weighs in at 5.9kg and costs £202.

www.mares.com



This new screen has been introduced by Cornwall-based Ambient Pressure Diving for its range of Inspiration rebreathers. The HUS is an OLED hands-free secondary display, showing key real-time information directly from the rebreather's controlling electronics. Current status information is traffic-light colour-coded and projected in front of the diver as a magnified virtual image. Powered by the rebreather's dual supply, it is located on the mouthpiece using an adjustable articulated mounting arm. The Heads-Up Screen costs £900 when supplied with a new Inspiration, or it can be factory-fitted to existing units with V.6 Vision electronics for £1290.

www.apdiving.com



TUSA Hyperdry Elite II Snorkel ****

The SP0101 Hyperdry Elite II is a more refined and streamlined version of TUSA's Hyperdry MAX, and is claimed to combine all the best features of TUSA's snorkels in a single unit. It has a low-profile dry top and angled purge chamber along with an Ortho-conscious mouthpiece intended to reduce jaw fatigue and a detachable two-section swivel adapter designed for free movement. The snorkel comes in eight solid colours plus six models in black with colour-contrasting highlights. Expect to pay a little under £29.

www.tusa.com





Fantasea FRX100 III Camera Housing ****

The Fantasea FRX100 III housing for the latest Sony Cybershot RX100 III compact digital camera is shock-resistant and depth-rated to 60m. It is made from injection-moulded polycarbonate and additional features include a double O-ring seal, mounts for lighting accessories, removable flash diffuser and fibre-optic cable-connector. The FRX100 III is supplied with a moisture detector and hand-strap and costs £395.

www.underwater-housing.co.uk





Subgear Carbon Mono Fin & Carry Bag

Developed in partnership with Trygons, Subgear has launched its latest carbon-fibre monofin for freedivers. Using a single blade made from a combination of high-grade carbon fibre and glass fibre, it is said by the maker to transfer power from the body through an inelastic band, with its hydrodynamic soft rubber foot-pockets reducing resistance to give the Mono Fin exceptional power. The optional bag is made from a tough waterproof tarpaulin with back-straps and a carry-handle. The Mono Fin costs £269 and the bag an extra £46.

www.subgear.de



Keldan Video 8X Light

The Video 8X from Switzerland-based Keldan is a compact, lightweight underwater lamp that employs a variable-output 28-105W LED light source powered by an intelligent 6.2Ah li-lon battery. It boasts a maximum output of 10,000 lumens with a colour temperature of 5000K. Burntimes are claimed to range from 45 minutes at full power to 170 minutes at the lowest of its five settings. The light features a new custom reflector and dome lens to give a beam angle under water of around 90°, and it is depth-rated to 200m. Expect to pay £1355.

>> www.keldanlights.com



NEXT ISSUE

GOOD, BAD & UGLY

That's how Nigel Wade sees diving off St Vincent

EL HIERRO

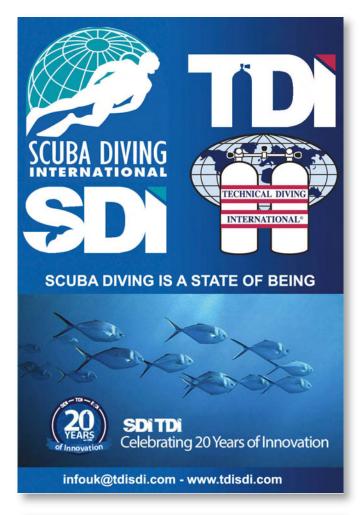
Volcanic diving off the Canaries' westernmost isle

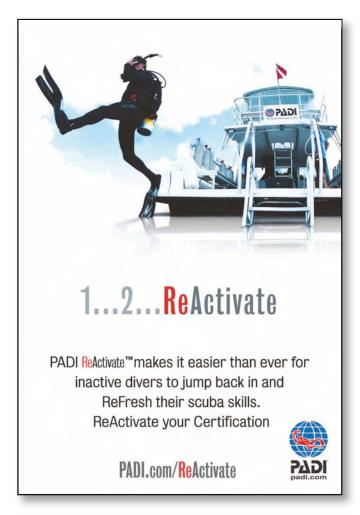
CESARE ROSSAROL

Tec expedition to dive WW1 Italian cruiser wreck



The DIVER TRAINING SH









OWCASE

#REALDIVING



REVOLUTION.
LOGIN AND LEARN.



DIVESSI.COM

Study whenever and wherever in most languages Learning is exciting with videos and animations Test your knowledge with interactive questions



Add notes for discussion with your Instructor
 Track your progress every time you login



BSAC clubs welcome divers from all agencies and levels of experience as well as absolute beginners. They're a great place to learn, train and enjoy regular diving as well as offering social activities, UK diving trips and diving holidays... and many other benefits.

Find a BSAC club now to arrange a visit at www.bsac.com/findit

The British Sub-Aqua Club (BSAC) is the National Governing Body for scuba diving in the UK. With 1,000+ clubs across the UK, we're sure we can find one that's right for you.

W: www.bsac.com T: 0151 350 6201 E: info@bsac.com





Dive Malta Gozo Comino Recreational & Technical Diving Guided **Dive Trips** Wrecks, Reefs & Caverns. Adult & Junior **Courses** Rental Packages for unguided diving. • Short Breaks 3 or 4 nights stay. • Technical Courses Cavern, Sidemount and CCR. Frankie van Remoortel Accommodation for groups of up to 35 persons with **FREE** Airport pick up service. providing the highest standards in diver training

Mosta Road, St. Paul's Bay, SPB 3114 Malta T: +356 21 571 111 or 21 572 558 E: dive@maltaqua.com

HOLIDAY DIRFCTO

FACILITIES INCLUDE:























PADI PADI Training

NAUI **NAUI Training**

S SSI Training



AUSTRALIA

GREAT BARRIER REEF - CORAL SEA

MIKE BALL DIVE EXPEDITIONS

143 Lake Street, Cairns, Queensland 4870, Australia. Tel: (00 61) 7 4053 0500. Fax: (00 61) 7 4031 5470. E-mail: mike@mikeball.com www.mikeball.com E-mail: mike@mikeball.com www.mikeball. UK Agent: Divequest – divers@divequest.co.uk





FUERTEVENTURA

DEEP BLUE

LANZAROTE

CANARY ISLANDS

P.O. Box 33, Caleta de Fuste, Antigua E-35610, Fuerteventura. Tel: (00 34) 606 275468. Fax: (00 34) 928 163983. www.deep-blue-diving.com

E-mail: info@deep-blue-diving.com CMAS, IAHD. Harbour location. Special group rates.

SAFARI DIVING LANZAROTE

Playa Chica, Puerto del Carmen, Lanzarote. Tel: (00 34) 625 059713, (00 34) 928 511992.

PADI 🗸 🗻 😘 🛍 🚯

www.safaridiving.com E-mail: enquiry@safaridiving.com English owned, award-winning BSAC School and Seamanship centre, SSI Instructor trainer facility and

PADI dive centre. Open every day of the year. Daily shore and boat dives, night dives too – all same price. Great deals for groups, universities and the solo diver.





OCTOPUS DIVING CENTRE

Princess Hotel.) Tel/fax: (00 357) 24 646571.

Mobile: (00 357) 9965 4462. www.octopus-diving.com
E-mail: octopus@spidernet.com.cy PADI 5* Gold Palm



PAPHOS

CYDIVE LTD

and Fastern Mediterranean















CYPRUS

RECOMPRESSION CHAMBER

BS:/AC PADI NAUI

RECOMPRESSION CHAMBER
24/7 professionally manned and fully computerised,
privately owned and operated 14-man recompression
chamber, internationally approved and the DAN
Preferred Provider for the island. If in doubt ... SHOUT!
Poseidonia Medical Centre, 47a Eleftherias Avenue,
Aradippou, Larnaca 7102, Cyprus.
24hr Emergency Dive Line: +357 99 518837.
E-mail: info@hbocyprus.com www.hbocyprus.com

63

a a

SS/.



PO Box 40124, Larnaca, Cyprus. (Dive centre located on the Larnaca to Dhekelia Road, 100m from the Resort & Cyprus' only BSAC Premier School.





Myrra Complex, 1 Poseidonos Avenue, Marina Court 44-46, Kato Paphos. www.cydive.com Tel: (00 357) 26 934271. Fax: (00 357) 26 939680. E-mail: info@cydive.com PADI 5 * CDC. First Career Development Centre in Cyprus











DIVE POINT

Parmenionos St. No4, Tombs of the Kings Rd, Kato Paphos, Cyprus 8045. Tel/fax: (00 357) 26 938730. E-mail: divepointcyprus@hotmail.com www.divepointcvprus.co.uk British BSAC/PADI instructor





EGYPT

HURGHADA

ILIOS DIVE CLUB

Steigenberger Al dau Resort, Yussif Affifi Road, Hurghada. Tel: (00 20) 65 346 5442. E-mail: info@iliosdiveclub.com www.iliosdiveclub.com PADI Dive Centre, border free





0

X

8

(AHD)

SEA QUEEN FLEET Sharm El Sheikh, Egypt. Tel: (00 20) 12 218 6669 or (00 20) 12 100 3941. E-mail: seaqueen@link.net or karen@seaqueens.co



SHARM EL SHEIKH

EAGLE DIVERS

Based in Ocean Club Hotel, 23 City Council Street, Hadaba. Tel: (+2) 012 0000 1596. www.eagle-divers.com E-mail: info@eagle-divers.com PADI 5* + TecRec Centre.





ELITE DIVING

Divers United Dive Centre, Karma Hotel, Hadaba, Sharm El Sheikh, Red Sea, Egypt. Tel: (00 20) 1224 308 780. E-mail: info@elite-diving.com www.elite-diving.com British owner managers.









FRANCE

DIAMOND DIVING

11 Rue des Pecheurs, Golfe Juan. 06220. Tel: (00 33) 615 305223. E-mail: info@diamonddiving.net www.diamonddiving.net Quality PADI training French Riviera, PADI 5*IDC Resort, six IDCs per year,









A W

GREECE

CRETE UNDERWATER CENTER

Mirabello Hotel, Agios Nikolaos, P.O. Box 100, P.C. 72 100. Tel/fax: (00 30) 28410 22406. Mob: (00 30) 6945 244434, (00 30) 6944 126846 www.creteunderwatercenter.com ining. Groups, individuals & dive clubs welcome.

600



GRENADA

SCUBATECH DIVE CENTRE

Calabash Hotel, L'Anse Aux Epines. Tel: +1 (473) 439 4346. Fax: +1 (473) 444 5050. E-mail: info@scubatech-grenada.com www.scubatech-grenada.com Discover The Difference!



PADI

0

INDONESIA

ALOR DIVERS

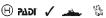
Jl. Tengiri N. 1 Kalabahi, Alor Island, NTT, Indonesia. Tel: (00 62) 813 1780 4133.

E-mail: info@alor-divers.com www.alor-divers.com Pristine. Diving. Exclusive. Covert. Destination





AQUAMARINE DIVING - BALI Jalan Petitenget 2A, Kuta, Bali 80361. Tel: (00 62) 361 4738 020. Fax: (00 62) 361 4738 021. E-mail: info@AquaMarineDiving.com www.AquaMarineDiving.com









IRELAND

CO. CORK

OCEANADDICTS

Ballynaloughe, Nohoval, Co. Cork. Tel: (00 353) (0)87 7903211. E-mail: anne@oceanaddicts.ie www.oceanaddicts.ie Day boat and liveaboard diving.









KENYA

KISITE MPUNGUTI MARINE PARK

FIREFLY OCEAN CAMP
Shimoni Beach Road, Shimoni, Tel: +254 (0)724 442555 or +254 (0)720 205120. E-mail: info@pillipipa.com www.pillipipa.com Tropical waters, dolphins, snorkelling and diving.









MALAYSIA

BORNEO SARAH

THE REEF DIVE RESORT

(Mataking Island), TB212, Jalan Bunga, Fajar Complex, 91000 Tawau, Sabah. Tel: (00 60) 89 786045. Fax: (00 60) 89 770023, E-mail: sales@mataking.com www.mataking.com PADI 5* Dive Resort.









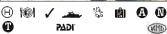
0

MALTA (inc. GOZO & COMINO

GOZO AQUA SPORTS

Rabat Road, Marsalforn, MFN9014, Gozo, Malta. Tel: (00 356) 2156 3037. www.gozoaquasports.com E-mail: dive@gozoaquasports.com PADI 5* IDC & DSAT Tec Rec Centre, BSAC Dive Resort. Premier Technical Diving Support Service.





MAITA

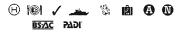
MALTAQUA

Mosta Road, St. Paul's Bay. Tel: (00 356) 2157 1111. Fax: (00 356) 21 580064. E-mail: dive@maltaqua.com www.maltaqua.com On-line booking service.
BSAC Centre of Excellence 007, PADI 5* IDC. **ANDI**



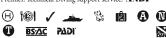
AQUAVENTURE LTD

AQUAVENT UNE LID
The Waters Edge, Mellieha Bay Hotel,
Mellieha MLH 02. www.aquaventuremalta.com
Tel: (00 356) 2152 2141 Fax: (00 356) 2152 1053
e-mallinfo@quaventuremalta.com
PADI 5* Gold Palm. Watersports available.



DIVE DEEP BLUE

Deep Blue Lido, 100 Annanijia Street, Bugibba Tel: (00 356) 21 583946. Fax: (00 356) 21 583945 E-mail: dive@divedeepblue.com www.divedeepblue.com PADI 5* Gold Palm/BSAC Premier. Technical Diving support service. ANDI



PALAU

KOROR

FISH 'N FINS DIVE CENTER / OCEAN HUNTER I & III LIVEABOARDS

PADI 5* IDC & TDI, Technical diving, 6 & 16 pay luxurious liveaboards. 30+ WWII Japanese wrecks to explore. Check our special events www.fishnfins.com www.oceanhunter.com



PHILIPPINES

THRESHER SHARK DIVERS

Malapascua Island, Daanbantayan, Cebu 6013. Tel: (00 63) 927 612 3359. www.thresherdivers.com F-mail: dive@thresherdivers British, PADI 5* IDC, IANTD.



SPAIN

BALEARIC ISLANDS - MALLORCA

SCUBA MALLORCA

C/d'el Cano 23, 07470 Port de Pollença, Mallorca. Tel: (00 34) 971 868087, Mobile: (00 34) 615 875609. E-mail: info@scubamallorca.com www.scubamallorca.com PADI 5* IDC.



BALEARIC ISLANDS - MENORCA

BLUEWATER SCUBA

Calle Llevant, Centro Civico Local 3, Cap D'Artrutx, 07769 Ciutadella de Menorca. Tel/fax: (00 34) 971 387183. www.bluewaterscuba.co.uk E-mail: sales@bluewaterscuba.co.uk Dive the famous Pont D'en Gil cavern!



TANZANIA

PFMBA

DIVE 710

Fundu Lagoon Beach Resort, P.O. Box 3945, Pemba Island/South Region, Zanzibar.

Tel: +255 (0)7774 38668, Fax: +255 (0)777 419906. E-mail: reservations@fundulagoon.com www.fundulagoon.com PADI 5* Gold Palm.



a



H PADI

SURAT THANI/KOH TAO

DAVY JONES' LOCKER

9/21 Moo 2, Mae Haad, Koh Tao, Koh Phangan, Surat Thani, Thailand 84280. Tel: (00 66) 77 456126. Mob: (00 66) 79 700913. www.techdivethailand.com E-mail: djl kohtao@hotmail.com Recreational, reef, tech, deep, wreck



TOBAGO

BLUE WATERS DIVE'N

Batteaux Bay, Speyside Tel: 1 (868) 395 9343. E-mail: wpalmer@bluewatersinn.com www.bluewatersdiven.com PADI 5* Dive Centre.



TURKS & CAICOS IS.

DIVE PROVO

Tel: 001 (649) 946 5040. Fax: 001 (649) 946 5936. E-mail: diving@diveprovo.com www.diveprovo.com 1990-2010, 20 years of Diving As It Should Be!







TO DIVER MAGAZINE **AND SAVE 47%**

Take out a ONE-YEAR subscription to Britain's best-selling scuba diving magazine for just £27.95* for 12 issues and save 47 per cent off the normal price of £52.80. You get:

- * Britain's best-selling diving magazine delivered to your door with no hidden costs (p&p is included)
- * No price rises during your subscription period
- ★ Guaranteed magazine every month you will never miss an issue of **DIVER**

Offer worth £52.80 YOU PAY ONLY £27.95

*Offer open to UK-based subscribers only; for overseas addresses, please add £12 (TOTAL PRICE; £39.95). Not to be used in conjunction with any other DIVER subscription offer.

VEC place and me 12 issues of DIVED for £27 95*

	zine, 8 Mount Mews, HAMPTON TW12 2SH DCK CAPITALS PLEASE) Name
Address	
	Postcode
Tel.	E-mail
PAYMENT DETAIL	I enclose a cheque made payable to Eaton Publications for £27.95
Please debit my	☐ Visa ☐ MasterCard ☐ Amex ☐ Maestro
Card no	
Expiry date	/ Maestro Issue No Security Code
Signature	(3-digit number from reverse of card AMEX: 4-digit number from front.
If you do not wish to rece	ive correspondence from other relevant companies, please tick. (I am over 18
•	YS TO ORDER Call the Subscription Hotline on 020 8941 8152
Or e-mail: subs	criptions@divermag.co.uk Or go to: www.divernet.com
	If you would like DIVER to be sent to an address other than the one above, please write details paper and attach to the form. We'll post you a gift letter to send on to the recipient.

LIVEABOARD DIRECTORY





Aquatours

Crusader Travel

DWw Dive Worldwide

CT DWw

CT DWw

Divequest Emp Emperor

Holiday Designers

Original Diving

Oonasdivers

Regaldive

DQ RD

STW Scuba Tours Worldwide TSP The Scuba Place Scuba Travel



Ultimate Diving

AUSTRALIA – Cairns

Spirit of Freedom www.spiritoffreedom.com.au



Pax	26	Elec	240V
Cab	11	Cour	Υ
EnS	Υ	A/C	Υ
Lth	37m	Ntx	Υ
Hull	steel	CCR	N

STW UD

GALAPAGOS Humboldt Explorer www.explorerventures.com



۰		-		
	Pax	16	Elec	
	Cab	8	Cour	N
	EnS	Υ	A/C	Υ
	Lth	32.3m	Ntx	Υ
	Hull		CCR	N

RD CT DWw

STW DO

MICRONESIA – Truk Lagoon

M.V. Odyssey www.trukodyssey.com



Pax	16	Elec	220v,110v
Cab	9	Cour	Υ
EnS	Υ	A/C	Υ
Lth	38.2m	Ntx	Υ
Hull	Steel	CCR	Υ
	Cab EnS Lth	Cab 9 EnS Y Lth 38.2m	Cab 9 Cour EnS Y A/C Lth 38.2m Ntx

DWw UD

AF STW

AUSTRALIA – Cairns

Spoilsport www.mikeball.com



26	Elec	240V
15	Cour	Υ
Υ	A/C	Υ
30m	Ntx	Υ
alum	CCR	N
	15 Y 30m	15 Cour Y A/C 30m Ntx

INDONESIA

S/Y Indo Siren www.worldwidediveandsail.d



JSai	AI.			
Pax	16	Elec	220V	
Cab	8	Cour	Υ	
EnS	Υ	A/C	Υ	ı
Lth	40m	Ntx	Υ	ı
Hull	wood	CCR	Υ	
				J

STW A DWw

Ocean Hunter Palau www.oceanhunter.com



16	Elec	240V
8	Cour	Υ
Υ	A/C	Υ
31m	Ntx	Υ
steel	CCR	Υ
	8 Y 31m	8 Cour Y A/C 31m Ntx

RD CT DWw

CARIBBEAN – St. Maarten & St. Kitts

Caribbean Explorer II www.explorerventures.com



•	COII	•		עא	
	Pax	18	Elec	110V	
	Cab	9	Cour	Υ	
	EnS	Υ	A/C	Υ	
	Lth	35.1m	Ntx	Υ	
	Hull	alum	CCR	N	

MALDIVES - Malé

Carpe Vita Explorer www.explorerventures.com



Pax	20	Elec	240V
Cab	10	Cour	Υ
EnS	Υ	A/C	Υ
Lth	38.2m	Ntx	Υ
Hull	wood	CCR	N

S/Y Palau Siren

STW AF www.worldwidediveandsail.com



Pax	16	Elec	220V
Cab	8	Cour	Υ
EnS	Υ	A/C	Υ
Lth	40m	Ntx	Υ
Hull	wood	CCR	Υ
	Cab EnS Lth	Cab 8 EnS Y Lth 40m	Cab 8 Cour EnS Y A/C Lth 40m Ntx

COCOS IS. – Puntarenas, Costa Rica Argo

www.underseahunter.com



•	•			
	Pax	16	Elec	110V
	Cab	8	Cour	Υ
	EnS	Υ	A/C	Υ
	Lth	39m	Ntx	Υ
	Hull	steel	CCR	Υ

MALDIVES - Malé

Eaale Rav www.maldivesdivingadventure.com



Pax	14	Elec	220V
Cab	7	Cour	N
EnS	Υ	A/C	Υ
Lth	30m	Ntx	Υ
Hull	wood	CCR	Y

PHILIPPINES

S/Y Philippine Siren www.worldwidediveandsail.com



Pax	16	Elec	220V
Cab	8	Cour	Υ
EnS	Υ	A/C	Υ
Lth	40m	Ntx	Υ
Hull	wood	CCR	Υ

DOMINICAN REPUBLIC – Silver Bank

Turks & Caicos Explorer II www.explorerventures



5.	con	n	DW	N A	
	Pax	20	Elec	110V	
	Cab	10	Cour	Υ	
	EnS	Υ	A/C	Υ	
	Lth	37.8m	Ntx	Υ	
	Hull	alum	CCR	N	

MALDIVES

S/Y Maldives Siren www.worldwidediveandsail.co



iusaii.com				
Pax	16	Elec	220V	
Cab	8	Cour	Υ	
EnS	Υ	A/C	Υ	
Lth	34m	Ntx	Υ	
Hull	wood	CCR	Υ	

THAILAND & INDONESIA

M.V. Queen Scuba www.queenscuba.com



Pax	21	Elec	220V
Cab	9	Cour	Υ
EnS	Υ	A/C	Υ
Lth	28m	Ntx	Υ
Hull	steel	CCR	N

A DWw

EGYPT – Sharm el Sheikh & Hurghada

South Moon www.seaqueenfleet.com



			CI.
ax	20	Elec	220V
āb	10	Cour	Υ
nS	Υ	A/C	Υ
.th	27m	Ntx	Υ
lull	wood	CCR	Υ
	Pax Tab EnS	Pax 20 Tab 10 TinS Y Tth 27m	Pax 20 Elec Tab 10 Cour EnS Y A/C tth 27m Ntx

MALDIVES - Malé

M.V. Sea Spirit www.scubascuba.com



Pax	12	Elec	220V
Cab	6	Cour	Υ
EnS	Υ	A/C	Υ
Lth	26m	Ntx	Υ
Hull	wood	CCR	Υ

STW

TURKS & CAICOS

Turks & Caicos Explorer II www.explorerventures.com



•	.com				
	Pax	20	Elec	110V	
	Cab	10	Cour	Υ	
	EnS	Υ	A/C	Υ	
	Lth	37.8m	Ntx	Υ	
	Hull	alum	CCR	N	

EGYPT – Sharm el Sheikh

VIP One www.vipone.com



Pax	16	Elec	220V
Cab	8	Cour	Υ
EnS	Υ	A/C	Υ
Lth	29.5m	Ntx	Υ
Hull	wood	CCR	Υ

Showcase your vessel in the UK's most authoritative diving magazine, complete with colour picture, web address, and summary details (including UK agents). This advert will cost you only £330 for 12 issues (one year).

To advertise in the **DIVER** Liveaboard Directory, call Alex on 020 8941 4568 or email: alex@divermag.co.uk

SUBSCRIBE

TO DIVER MAGAZINE AND PICK UP A FREE **LED DIVE TORCH**



- * You also get a Northern Diver Fusion X3 LED diving torch (worth £40) ABSOLUTELY **FREE**
- * Featuring a powerful 3W LED, it gives more than 8 hours of high-intensity light from a single set of batteries
- * Offer includes p&p for the 12 monthly magazines

Offer worth £92.80 -YOU PAY ONLY £48.95

PES, please send me 12 issues of DIVER plus free Forch for £48.95						
starting with the issue POST COUPON TO FREEPOST RTHU-JZAC-BJTR,						
DIVER Magazine, 8 Mount Mews, HAMPTON TW12 2SH						
YOUR DETAILS (BLOCK CAPITALS PLEASE) Name						
Address						
Postcode						
Tel. E-mail						
PAYMENT DETAILS						
Please debit my 🗌 Visa 🔲 MasterCard 🔲 Amex 🔲 Maestro						
Card no						
Expiry date Maestro Issue No						
Signature						
Offers open to new UK subscribers only. Not to be used in conjunction with any other (I am over 18) DIVER subscription offer. If you do not wish to receive correspondence from other relevant companies, please tick.						
ALTERNATIVE WAYS TO ORDER Call the Subscription Hotline on 020 8941 8152						
Or e-mail: subscriptions@divermag.co.uk Or go to: www.divernet.com						
GIFT SUBSCRIPTIONS: If you would like DIVER to be sent to an address other than the one above, please write details on a separate piece of paper and attach to the form. We'll post you a gift letter to send on to the recipient. 03/1						

SUBSERIE

TO DIVER MAGAZINE AND PICK UP A FREE RUCKSACK

Take out a TWO-YEAR subscription to Britain's bestselling diving magazine for £59.95 (a saving of 43 per cent off the normal UK price)

* You also receive a stylish Rucksack with **DIVER** Magazine logo (worth £20) ABSOLUTELY FREE

* The **DIVER** Magazine **Rucksack features** internal and external pockets, plus side mesh pockets and compression straps

***** Offer includes postage and packaging for the **DIVER** Rucksack and for the 24 magazines



Offer worth £125.60 -YOU PAY ONLY £59.95

starting with	d me 24 issues of DIVER plus free Rucksack for £59.95 theissue FREEPOST RTHU-JZAC-BJTR,
3	zine, 8 Mount Mews, HAMPTON TW12 2SH KK CAPITALS PLEASE) Name
Address	
	Postcode
Tel.	E-mail
PAYMENT DETAILS	☐ I enclose a cheque made payable to Eaton Publications for £59.95
Please debit my	☐ Visa ☐ MasterCard ☐ Amex ☐ Maestro
Card no Expiry date	
Gifts usually dispatche If you do not wish to recei	(I am over 18) subscribers only. Not to be used in conjunction with any other DIVER subscription offer. I within 7 days. We correspondence from other relevant companies, please tick.

Or e-mail: subscriptions@divermag.co.uk Or go to: www.divernet.com

GIFT SUBSCRIPTIONS: If you would like **DIVER** to be sent to an address other than the one above, please write details on a separate piece of paper and attach to the form. We'll post you a gift card to send on to the recipient.

CLASSIFIED ADS

CHARTER BOATS

www.channeldiving.com Midweek diving for individuals. Tel: 07970 674799. (45829)

www.sussexshipwrecks.co.uk "Sussex" Eastbourne. Fast Cat, lift, O2, toilet, tea/coffee. Groups and individuals. Diver/skipper Mike, mobile: 07840 219585, e-mail: dive@sussexshipwrecks.co.uk (52998)

BANK HOLIDAY AVAILABILITY

DIVE 125 07764 585353

Custom built 42' dive vessel, huge deck space. Diver lift. large wheel house + separate toilet.

www.dive125.co.uk Eastbourne Charters

Lymington - "Wight Spirit". Diving West Wight, East Dynamicon - Wight Spirit Dynamicon - Wight, East Dorset, English Channel. Beginners to technical and small groups. Electric lift. Easy access, easy parking. Owner/skipper Dave Wendes. Tel/Fax: (023) 8027 0390, e-mail: wightspirit@btinternet.com www.wight

DIVE BRIGHTON

www.brightondiver.com

10m cat with dive lift. Individuals and groups. All levels, novice to technical. BSAC



Advanced and trimix skipper.

Call Paul: 07901 822375 or 01273 301367

Dive Littlehampton "Final Answer". Shallow to deep, we cater for all. Skipper & crew on board, available 7 days a week. Maximum 10. Book for 2015. Tel: (01243) 553977 or 07850 312068, www.ourjoy.co.uk

Plymouth, Discovery Divers, Fort Bovisand. Boat charter, air, nitrox, trimix, from £20pp. Groups + individuals. Contact Danny, 07739 567 752. (54914) (54914)

WANAGE

01929 427064 / 07770 478771

Venture Dive Charters. For quality diving from Plymouth, visit; www.venturecharters.co.uk or tel; 07948 (46698)



DIVING SOUTH DEVON. 10m Aquastar, MCA Cat 2 coded. Spacious, sheltered deck area. Owner/skipper Tony Hoile, diver/instructor with 40 years' experience diving South Devon. Gas station available. Also operating from Salcombe.

Bookings **07970 759172** or www.dartboat.com



Dive Lundy aboard the "Lundy Murrelet". Purpose built charter, maximum 10 divers. Diver skipper with 35 years' experience. Oxygen carried. For details, please phone: (01237) 424228 or 07974 805086. Also ask about midweek specials! www.lundy-charters.co.uk

Anglesey. Hard boat diving aboard "Julie Anne" and "Empress". Diver lift. Visit: www.julie-anne.co.uk or tel: (01407) 831210, mobile: 07768 863355. (44130) **Quest Diving.** Hardboat with lift. Diving Anglesey and North Wales. Tel: 07974 249005. Visit: www.questdiving.co.uk

Dive Belfast, Strangford Loughs and Rathlin Island. Weekend break packages from £190 per person, inc ferry, accommodation and diving. Tel/fax: (02891) 464671,

web: www.dvdiving.co.uk (47466) **Aquaholics.** Diving from Rathlin Island to Malin Head www.aquaholics.org

FARNE DIVING SERVICES

• TWO CHARTER BOATS WITH LIFTS TWIN/DOUBLE ENSUITE B&B • DORMIT STAN/LEE HALL (01665) 720615

Souther DIVING Seahouses

Dive the Farne Islands aboard Sovereign II & III Seals, scenic and wrecks. Own quality B&B. Fully stocked dive shop and air station. Air to 300bar and nitrox available. Tank hire also available. Ailsa, Toby & Andrew Douglas. Tel/fax: (01665) 720760 or www.sovereigndiving.co.uk

Farne Islands

All year round diving from our hard boats and RIB for groups and individuals. Air Station with air fill collection service.

WILLIAM SHIEL Tel: 01665 721297

diver@farne-islands.com www.farne-islands.co.uk

Looking for last minute spaces on a UK dive charter boat? Then go to:

www.DIVERNET.com





T: 07967 419025

2014 prices as little as £400 per day for whole boat hire (max 12 divers). Accommodation available at Morvern Dive Lodge for only £22pp/pn

Oban/Mull Area For Winter Divina

Spend your spring weekends diving the sheltered waters around Oban/Mull areas. Dates available for Spring & Easter

holiday periods. Tel Jim: (07899) 897576

Boat Mobile: (07775) 508242

divescapaflow.co.uk (01856) 850055

Now taking bookings for 2015 & 2016.

Contact: leigh@divescapaflow.co.uk

DIVE SCAPA FLOW



www.sunrisecharters.co.uk

With full shelter deck for all weather, six spacious double cabins with hot & cold water, two showers, two toilets, large saloon, central heating throughout, galley with all facilities and two dry changing areas. Long established, high standard of service. Nitrox, trimix & onboard meals available. Reduced off-peak season rates.

2015 SPACES AVAILABLE

Tel: 01856 874425 Fax: 01856 874725 E-mail: dougie@sunrisecharters.co.uk

SCAPA FLOW 3! वाए 01856 851532 bob@mvhalton.co.uk

www.mvhalton.co.uk HALTON CHARTERS

HOLIDAYS IN UK

Scotland

Beautiful Tobermory, Isle of Mull. Diver-friendly accommodation in a quality property sleeping 9. www.tobermorylets.com or tel: (01688) 302228.

(53131)

Swim with Hebridean Giants!



info@baskingsharkscotland.co.uk

WRECKS • WALLS • REEFS • SEALS See the best of underwater Argyll

07975 723140 | dive@diveoban.com

DIVING MEDICALS

Diving Medicals - Midlands (Rugby) - HSE, Sports Medicals and advice at Midlands Diving Chamber. Tel: (01788) 579 555. www.midlandsdivingchamber.co.uk (42107)

Diving Medicals - Nottingham. Sport Diving medicals: Diving Medicals - Nottingham. Sport Diving medicals: \$50. HSE Commercial Diving medicals: £110. OGUK
Offshore medicals: £100. Student and Group discounts.
Combine with an HGV/taxi medical for an extra £5. Tel:
(07802) 850084 for appointment. Email:
mclamp@doctors.org.uk (48809)
Diving medicals: London. HSE, Sport and phone advice.
Tel: (020) 7806 4028 www.londondivingchamber.co.uk

Dr Des McCann, Dr Gerry Roberts and Dr Mark Bettley-Smith. HSE Medicals and phone advice. Tel: (01202) 741345. (43997)

ACCESSORIES



WANT TO ADVERTISE?

Call Sara on: 020-8941 8152 e-mail: sara@divermag.co.uk

PHOTOGRAPHY

SEAPRO - SUBSEA MODULES

are HOUSINGS for **SCIENTIFIC EQUIPMENT** and VIDEO SYSTEMS

Special Packages on Video Cameras and Housings

See web site:

www.greenawaymarine.com "PACKAGE DEALS"

GREENAWAY MARINE Tel: (01793) 814992

INSURANCE



SUB AQUA & MARINE INSURANCE SERVICES LTD

www.divinginsuranceuk.com

Authorised and Regulated by the Financial Conduct Authority.

Specialist Sport Diver NSULA NCE

REPAIRS/SERVICES





CLUB NOTICES FREE OF CHARGE. (Max 25 wo Non-commercial clubs, no sa

Active and friendly BSAC Club. All year diving in local lake. New and qualified divers of all agencies welcome.

Own club house with 7m RIB and compressor. For further information visit www.mksac.co.uk (42728)

Alfreton (Derbys) BSAC 302 welcomes new members and qualified divers. A small but active club with own RIB, wreck diving a speciality. Contact Charlie on (01246) (50649)

Banbury SAC. Friendly, active club with weekly meetings and training sessions, own boat, compressor and equipment. Welcome divers/non-divers. www.bansac.org or call 07787 097 289.

Bracknell Sub Aqua Club welcomes new and experienced divers from all agencies. Meets poolside at Bracknell Sports Centre Thursdays from 8.30pm. Diving, training and social calendar: www.bracknellscuba.org.uk or tel:

Braintree Riverside Sub Aqua Club, Essex. A friendly Braintree Riverside Sub Aqua Club, Essex. A friendly club, we welcome divers of all abilities and have an active diving and social programme. Come and join us! email: denise.f.wright2@btinternet.com www.braintree riversidesac.co.uk (52193)

Brixham Divers (BSAC) Torbay. East Devon reefs/wrecks.

Novices/experienced/visitors/groups all welcome to join us. 7mtr RIB, new 150hp Evinrude electronics. Cruises 30 knots. Takes 10 divers. Club/social nights. Tel: Gary: 07740 288 670. (49728)

Bromley/Lewisham Active divers required. Full programme of hardboat diving throughout the year. Check out Nekton SAC www.nekton.org.uk or contact Jackie (01689) 850130.

Buntingford Horizon Divers (East Herts). All welcon Pool meetings. Dive trips UK and abroad. 5.8m RIB. Social calendar. Tel: 07971 491702 or visit: www.horizondivers.org (50885)

Chelmsford and District SAC meet at 8pm every Friday at Riverside Pool. New and qualified divers are welcome. Details: www.chelmsforddiveclub.co.uk (54135)

Cheshire, Icicle Divers SAA Club, Meet every Monday evening 9pm at Crewe Pool, Flag Lane. New and experienced divers welcome. Try-Dives available. www.icicledivers.com

Buckingham Dive Centre. A small friendly club welcoming all divers and those wanting to learn. We dive throughout the year and run trips in the UK and abroad. www.stowesubaqua.co.uk Tel: Roger 07802 765 366.

Chingford, London BSAC 365. Friendly and active club welcomes divers from all agencies and trainees. Meet Wednesday 8pm, Larkswood Leisure Centre E4 9EY. www.dive365.co.uk Email: loughtondivers365@gmail.com

Cockleshell Divers, Portsmouth, Hants. Small, friendly club welcomes new and experienced divers from all agencies. Meets at Cockleshell Community Centre, Fridays at 8pm. Email: cockleshell.divers@aol.co.uk (45593) Colchester Sub-Aqua Club welcomes experienced divers and beginners. Sub-Aqua Association training. Diving at home and abroad. Meets at Leisure World Friday evenings, Contact Tony (01787) 475803. Cotswold BSAC, a friendly club based at Brockworth Pool, Nr Cheltenham, Fridays 8pm. Regular inland diving and coast trips. Tel: 07711 312078. www.cotswold

bsac332.co.uk (54268)

Darwen SAC, in Lancashire, with an active diving programme. Own RIB. new members welcome regardless of agency/training. We provide BSAC training. Weekly pool sessions, www.darwensac.org.uk (5154)

Dream Divers. Very friendly dive club in Rotherham

welcomes divers of any level/club. Meet at the Ring O Bells, Swinton, lastThursday of the month at 19.30. Email: info@dreamdiversltd.co.uk (52751)

Ealing SAC, BSAC 514. Friendly, active club, own ribs; welcomes new and experienced divers. Meets Highgrove Pool Eastcote, Tuesday nights 8.30pm. www.esac.org.uk

East Cheshire Sub Aqua. Macclesfield based BSAC club. Purpose-built clubhouse, bar, two RIBs, minibus, nitrox Purpose-built clubhouse, bar, two RIBs, minibus, nitrox, compressor. Lower Bank Street, Macclesfield, SK11 7HL. Tel: (01625) 502367. www.scubadivingmacclesfield.c

East Durham Divers SAA welcome new/experienced divers of any agency. Comprehensive facilities with own premises half a mile from the sea. Contact: John: 07857 174125. (53913)

Bast Lancs Diving Club based in Blackburn. Friendly and active club welcomes new members at all levels of diving from all organisations. Tel: 07784 828961 or email: ELDC@hotmail.co.uk www.eastlancsdivers.co.uk

Eastbourne BSAC; RIB, banked air (free) to 300bar, Nitrox, Trimix. Enjoy some of the best diving on the South Coast, all qualifications welcome. www.sovereigndivers.co.uk (48368)

www.sovereigndivers.co.uk (48368) Eastleigh (Southampton) SAC (BSAC). Want to learn? An experienced diver? Interested in a course or a try dive? We meet every Tuesday at 10pm in the Fleming Park Leisure Centre bar. Email: eastleighsubaquaclub@

Editive Centre Dar. Email: eastreignsubaquactuber gmail.com www.eastleigh.subaquactube.co.uk (48679) Ellon Sub Aqua Club, Aberdeenshire, welcomes newcomers and experienced divers. We dive year round and meet on Thursday evenings. Contact www.ellonsubaquactub.co.uk (48194)

www.eilonsubaquactub.co.uk
[48194]
Flintshire Sub Aqua Club based in Holywell, Flintshire,
welcomes new and experienced divers from all agencies.
Full dive programme. Meet Wednesdays. See us at
www.flintsac.co.uk or call (01352) 731425. (42611) Haslemere Sub Aqua Club based at Haslemere, Surrey, friendly active club welcomes new and experienced divers, offers full training. Meets Thursday nights. Contact Mike 07754 968297

Hastings SAC. 58 years old SAA club (0044) welcomes new and experienced divers. Two hard boats. Meets 8.45pm Tuesdays at Summerfields, Hastings. See www.hastingssubaqua.co.uk (49967) Hereford Sub Aqua Club, is looking for new members.

Regular diving off the Pembrokeshire coast on own RIBs.
Training and social nights. Contact: rusaqua@
eooglemail.com (52561)

HGSAC. South Manchester based friendly, non-political club welcomes newcomers and qualified divers. Lots of diving and social events. Family. Three RIBs and

compressor. www.hgsac.com (54680) **High Wycombe SAC.** Come and dive with us - all welcome. Active club with RIB on South coast. Call Len. 07867 544 738. www.wycombesubaqua.com (51923) **HUGSAC** - BSAC 380. Experienced club, based around Hertfordshire, with RIB on the South coast. Members

dive with passion for all underwater exploration. All agencies welcome, www.hugsac.co.uk (44809) Ridd Divers. Crawley-based dub. Twin engine dive boat with stern lift in Brighton Marina. Training for novices, diving for the experienced - all qualifications welcome. www.ifield-divers.org.uk Email: info@ifield-divers.org.uk or tel: (01883) 345146. (41123)

Ilkeston & Kimberlev SAA 945, between Nottingham and Derby, welcomes beginners and experienced divers. We meet every Friday night at Kimberley Leisure Centre at 8.30pm. Contact through www.iksac.co.uk (54401) K2 Divers, covering West Sussex/Surrey. A friendly BSAC club, but all qualifications welcome. Training in Crawley, boat at Littlehampton. Email: k2divers@yahoo.co.uk or tel: (01293) 612989 (50798)

Monastery Dive Club (Dunkerton Branch). New divers welcome to join our club. Trips to Plymouth and NDAC. GSOH is a must. South Wales area (Crosskeys, Risca.) Please text me: Flinty 07971 432803 or email: welshflinty@hotmail.com

Kingston BSAC, Surrey. Two RIBs , clubhouse and bar, active dive programme, 2 compressors, nitrox, trimix, full training offered at all levels. All very welcome. www.kingstonsac.org or tel: 07842 622193. (52105) Leeds based Rothwell & Stanley SAC welcomes new and

experienced divers, full SAA training given. Purpose-built clubhouse with bar, RIB, compressor. Meet Tuesday eves: 07738 060567, kevin.oddy@talktalk.net (52469) Leicester Diving - Friendly & active BSAC club based at Wigston pool. Meet Tuesday nights at 8pm. Contact Daniel on 07957 507517, www.delmardiveclub.co.uk

Lincoln - Imp Divers. Small, friendly, non-political diving club with our own RIB are looking to welcome new and experienced divers. Contact Richard: 07931 170205.

Lincoln and District BSAC. Active club with own RIB, compressor and other facilities. Regular trips and training

www.lincolndivingclub.co.uk (52014) **Lincs Divers** BSAC 1940. Friendly, active dive club offering dive trips and training for new/experienced divers, Lincoln based. www.lincsdivers.co.uk (50402) **Llantrisant SAC**, two RIBs, towing vehicle, welcomes new and experienced divers. Meet at Llantrisant Leisure Centre 8pm Mondays. Contact Phil: (01443) 227667. www.llantrisantdivers.com (54587)

London No. 1 Diving Club encourages divers of all levels from all agencies. Based in Central London with 7m RIB, compressor, hire kit etc. www.londondiver.com (50054) Manta Divers. Norfolk wreck & reef diving. Small friendly, experienced club. All agencies welcome. SAA training, www.mantadivers.org (42845)

Mercian Divers (BSAC 2463) Active & friendly club.

New, experienced & junior divers welcome. Own RIB. Based in Bromsgrove, West Midlands. Tel: (01905) 773406, www.mercian-divers.org.uk (48047)

//J940b, www.mercian-divers.org.uk (48047)
Millennium Divers. Active friendly club for all levels and certifications of diver, based in Portland Dorset. UK diving and holidays. Club social nights www.millenniumdivers.org (50721)
Mole Valley Sub Aqua Club. Surrey based SDI club, own

RIB, active diving UK & Abroad, training and social events. Trainees/crossovers welcome. Contact: 07552 498558 or email: committee@mvsac.org.uk (53795) **Nekton SAC.** Based in Bromley, we are a friendly and active SAA club that welcomes experienced and new divers alike. Info@nekton.org.uk or call Steve: 020 8467 4599.

Nemo Diving Club. Small, friendly dive club offering dive trips and training for non/experienced divers in Retford and surrounding areas. Contact: www.nemo divertraining.co.uk

North Glos BSAC 80. Friendly, active club welcomes new and experienced divers. Own boat and equipment with weekly pool sessions, Thursdays, 8,30pm at GL1 weekly pool sessions, 1 nursuays, 0.50pm at 52. Gloucester, (Gloucester Leisure Centre). www.nglos.co.uk (54773)

North Notts Nautilus SAA942, Mansfield, Family dive club, diving and social members welcome. Own clubhouse with licenced bar. Regular dive trips and holidays. www.NNN Divers.co.uk Tel: (01623) 622130. Facebook. (47873)

Nuneaton. Marlin BSAC welcomes experienced divers to Pingles pool every Thursday. Active training, diving, social programme in a flourishing club with no politics allowed, www.marlinsac.com

Orkney SAC. Small, friendly active dive club, based in Kirkwall, welcomes divers of any level or club. Own RIB and compressor. Contact Craig: 07888 690 986 or email: craigbarclay31@hotmail.com (44583) **Preston Divers** SAA 30. The friendliest dive club. Come

and meet us at Fulwood Leisure Centre, Preston on Monday nights between 8.00pm - 9.00pm. www.prestondivers.co.uk (42509)

Reading BSAC28 offers an active, friendly diving club. Open to all grades and agencies. Pool training Mondays, club night Thursdays. www.rbsac.org.uk Email: rbsacinfo@gmail.com Tel: Sue 07772 172 575. (43315) Wells Dive Group. Friendly, active club in Somerset welcomes new or experienced divers. Meeting/training at The Little Theatre or the pool on Thursdays, try dives available. Regular RIB diving, trips around the UK and abroad. Visit: www.wellsdivers.co.uk or Tel: Rob, 07832 Reading Diving Club. Experience the best of UK diving with a friendly and active club. All welcome. Tel: 01183 216310 or email: info@thedivingclub.co.uk www.thedivingclub.co.uk (49446) Rochdale Sub-Aqua Club. Beginners and experienced

divers welcome. Full training provided. Pool session every Wednesday. Club has two boats. More info at www.Rochdale Divers.co.uk or call Mick 07951 834 903.

Ruislip & Northwood BSAC. Friendly, active club, RIB,

welcomes new and qualified divers. Meets Highgrove Pool Thursday nights 8.30pm. www.rnbsac.co.uk Tel: 07843 738 646 for details.

Scotland Plug Divers. Small, friendly dive club welcomes newly qualified and experienced divers to join us. Regular hardboat diving around Bass Rock/Firth of Forth/ Eyemouth and trips abroad. Tel George: 07793 018 540. Email: plugdivers@btinternet.com (41280) Selby Aquanauts SAA 1117. Family friendly club,

welcomes new and qualified divers. Regular trips UK & abroad. Meet every Thursday, Albion Vaults, Selby at 9pm.
Contact Mark: 07831 295 655. (43861)

Sheffield BSAC36. Friendly, social and active dive club welcomes newcomers or qualified divers. Trips, socials, weekly pool and club/pub meetings, club RIB. See www.bsac36.org.uk (51075) **Slough** 491 BSAC; small friendly club welcomes divers

at all levels. Meet at Beechwood School Fridays 19.30. Diving holidays and South Coast. Email: malcolm@uv.net or tel: Tony (01344) 884 596. (52656)

South Coast Divers (SAA 1150) Portsmouth. A friendly

and active club welcomes new and experienced divers from all agencies. Email: southcoastdivers@hotmail.co.uk

or call Darren: 07449 794 804. (51236) **South Queensferry SAC**, near Edinburgh. Two RIBs, gear for hire. Pool training during the winter; trips & expeditions in the summer. Pub meeting at Hawes Inn. Call Warren: 07980 981 380. www.sqsac.co.uk (45477)

Steyning Scuba Club, West Sussex. All divers welcome.
Steyning Pool, Monday evenings at 8.30pm. Contact Andy Willett on 07786 243 763. www.seaurchin divers@hotmail.co.uk (51625)

Sutton Coldfield SAC, friendly BSAC club, welcomes all

divers from trainee to advanced. All agencies. Own RIBs and compressor. Meet every Wednesday, 8.15pm at Wyndley (3.4m pool). For free try-dive call Alan: 07970 573638 or Mark: 07787 106191.

573638 or Mark: 07787 106191. (45696) **Swanley Sub-Aqua Club**. Friendly, active dive club with club RIB. Pool sessions Monday 9pm at White Oaks Leisure Centre, Swanley. PADI training, Open Water to Rescue Diver for members. Contact Karl: training@swanleysubaqua.co.uk (55090) Teddington SAC at Teddington Pool, Wednesdays 21.00.

Training and good social side. Diving near and far. Tel: 07951 064448 or email: deepexplorer@blueyonder.co.uk

The Bath Bubble Club SAA777 seeks new members. New and qualified divers of all agencies welcome. Weekly pool training, every Wednesday at 9pm, Culverhay Sport Centre, Rush Hill, Bath. Regular diving programme from club RIB. www.bathbubbleclubuk.co.uk (53651) **Totnes SAC (Devon).** We are an active multi-agency club

and welcome new members and qualified divers from all organisations. Two RIBs and own compressor/nitrox, plus club 4WD. We dive all round South Devon and Cornwall, www.totnes-bsac.co.uk for details. (51163)

Watford Underwater Club BSAC. Family friendly, approachable, established and fun club. Portland based 7m RIB. Development & training all levels. www.wuc.org.uk email: info@wuc.org.uk (50315) **West Wickham, Kent.** BSAC 0533. Welcomes new and

qualified divers. Active training and diving. Club RIB at Brighton Marina. All agencies welcome. Thursday 20.30 -22.00. Dave 07906 837 744. www.wickhamdiver.co.uk

Wiltshire's premier Scuba Diving Club - the Seahorses. Friendly, active dive club, all affiliations welcome, weekly pool sessions, trips UK and abroad, RIBs, socials. Training partner JC Scuba, Swindon, beginners to advanced. www.seahorsediveclub.co.uk (51354)
Witham, Essex. BSAC 1159. Friendly dive club welcomes

new and experienced divers. Meets at Bramston Sports Centre every Thursday 8.30pm. Visit our website: www.bramstonsac.com

WEBSITES

www.lumb-bros-das.co.uk

Quality Diving Products

www.otterboxes.co.uk

Rugged waterproof cases for every environment

www.tek-tite.co.uk

Torches, strobes, marker lights for diving and outdoor pursuits

www.unidive.co.uk

A quality range of masks, snorkels, fins and knives

Travel Insurance

- Equipment Insurance
- Boat Insurance
- Personal Accident Insurance

Phone 'your insurance buddy' on 01483 237827





DIVE CENTRE DIRFCT

FACILITIES INCLUDE:







Regulator servicing





Dive boat charter arranged



Compressed Air





Technical Gases





ENGLAND

CORNWALL

PORTHKERRIS DIVERS

PADI 5* IDC Centre, Porthkerris, St. Keverne, Nr Helston TR12 6QJ. Tel: (01326) 280620. www.porthkerris.com E-mail: info@porthkerris.com 7 days a week, tuition from novice to instructor, hardboat/RIB charters, escorted dives, dive shop, beach café, basking shark trips, camping, shore dive.



PΔDI







DEVON

DIVERS DOWN

139 Babbacombe Road, Babbacombe, Torquay TQ1 3SR. Tel: (01803) 327111. Fax: (01803) 32463. E-mail: info@diversdown.co.uk www.diversdown.co.uk Open Mon-Fri 1000-1730; Sat 0900-1730; Sun 1000-1600. PADI 5* IDC.

PADI BS:AC SS/.





DORSET

DIVERS DOWN SWANAGE The Pier, High Street, Swanage, Dorset. Tel: (01929) 423565. Mob: (07977) 142661.

E-mail: medina@madasafish.com





LONDON

LONDON SCHOOL OF DIVING

11 Power Road, Chiswick W4 5PT. Tel: +44 (0)20 8995 0002. Fax: +44 (0)20 8995 5100. E-mail: info@londonschoolofdiving.co.uk Www.londonschoolofdiving.co.uk
Open 1000-1800 Mon-Thurs, 1000-1700 Fri-Sat.
PADI CDC, onsite pool, kids parties.













ZIBEST] (AHD)

HAMPSHIRE

ANDARK DIVING

256 Bridge Road, Lower Swanwick, Southampton SO31 7FL. Tel: (01489) 581755. Fax: (01489) 575223. 7f.L. Ier; (01469) 301/33. Tak; (1469) 3/322. E-mail: bookings@andark.co.uk www.andark.co.uk Open 7 days, PADI 5¹ IDC, RYA powerboat, 3.5m pool & classrooms, large shop, mail order, kids parties, Club, helo escape, disabled friendly, 300bar.



DAN **(4) (**

KENT

DIVE MACHINE

Unit 11 Orchard Business Centre, Sanderson Way, Tonbridge, Kent TN9 1QF. Tel: (01732) 773553. Fax: (01732) 773663. E-mail: robert@divemachine.com www.divemachine.com Mon-Sat 0930-1730, closed Sunday. Friendly, helpful, huge stocks. PADI CDC Centre.







IANTD •

LEICESTERSHIRE

STONEY COVE -THE NATIONAL DIVE CENTRE

Leicester, LE9 4DW. www.stoneycove.co.uk www.underwaterworld.co.uk Sales & service: (01455) 273089; The Dive School (PADI 5* IDC): (01455) 272768; Nemo's Bar & Diner: (01455) 274198. UK's leading dive company. Dive "Stanegarth", Britain's biggest inland wreck.



BS:/AC











SΔΩDI.









MERSEYSIDE

WIRRAL SPORTS & LEISURE

164-192 Cleveland Street, Birkenhead CH41 3QQ. Tel: (0151) 647 5131. Fax: (0151) 666 2631. e-mail: sales@wirralsports.co.uk www.wirralsports.co.uk Mon-Fri 0900-1730; Sat 0900-1700. Air to 300bar. Diving, watersports, mail order and online shopping. Friendly, helpful staff, PADI Centre.



PADI





MIDDLESEX

G&H DIVING SERVICES

Unit 1 Willow House, River Gardens, North Feltham Trading Estate, Feltham TW14 0RD. Tel: (020) 8751 3771. Fax: (020) 8751 2591. E-mail: Ghdiving@aol.com Mon-Fri 0900-1800; Sat 0900-1230, ANDI Training









WEST YORKSHIRE

THE DIVERS WAREHOUSE

Otter House, 911 Wakefield Road, Dudley Hill Slip Road, Bradford BD4 7QA. Tel: (01274) 307555. Fax: (01274) 730993. E-mail: sales@diverswarehouse.co.uk Mon-Fri 0930-1730; late night Thurs 'til 2000; Sat 0930-1700; closed Sun. Manufacturer of Otter drysuits



JQDI. BS:/AC







NORTHERN IRELAND

AQUAHOLICS DIVE CENTRE

14 Portmore Road, Portstewart BT55 7BE Tel: (028 70) 832584. E-mail: dive@aguaholics.org www.aquaholics.org Open 0900-1730. Diving Malin Head to Rathlin Island.













Call Sara or Alex on 020 8941 8152

ADVERTISERS' INDEX

AGGRESSOR FLEET	67	OONAS DIVE CLUB	16
A P DIVING	21	OONASDIVERS	20/43
APEKS MARINE	17	OTTER DRYSUITS	70
AQABA TOURISM	18	PADI EMEA	96
AQUA-FIRMA	14	PRODIVE MEXICO	60
ATOMIC AQUATICS	85	PRODIVERS MALDIVES	8
BLUE O TWO (RED SEA)	60	PROFESSIONAL DIVING ACADEMY	56
BLUE O TWO (SIREN FLEET)	82	RAID	96
BRITISH SUB-AQUA CLUB	97	RED SEA DIVING COLLEGE	57
CAMEL DIVE CLUB	75	REGALDIVE (MALTA)	75
CAMERAS UNDERWATER	50	REGALDIVE (RED SEA)	43
CARIBBEAN FUN TRAVEL	75	REGALDIVE (WORLDWIDE)	85
DANCER FLEET	67	SCUBA SCHOOLS INTERNATIONAL (SSI)	97
DIVESANGHA	93	SCUBA TOURS WORLDWIDE	23
DIVE WORLDWIDE	44	SCUBA TRAVEL (DIVER AWARD)	30
DIVER APP	60	SCUBA TRAVEL (MALDIVES)	76
DIVER SUBSCRIPTIONS:		SCUBA TRAVEL (RED SEA)	3
MAGAZINE ONLY	99	SEA & SEA (DIVE RITE)	56
RUCKSACK	101	SEA & SEA (OCEAN REEF)	76
TORCH	101	SEA & SEA (UNDERWATER KINETICS)	92
WATCH	105	SEA & SEA (YS-03 STROBE)	44
EGYPTIAN TOURIST AUTHORITY	4/5	SIMPLY SCUBA	33/92
EURO DIVERS	56	SPORTIF	15
EXPLORER VENTURES	71	SUB AQUA ASSOCIATION (SAA)	96
FLORIDA KEYS / KEY WEST	67	SUBGEAR	71
HOLLIS	24	SUUNTO DIVING UK	108
INON UK	44	TDI/SDI	96
MALTA TOURIST AUTHORITY	26	THE SCUBA PLACE	37
MALTAQUA	97	THE UNDERWATER CENTRE	76
MARES	11	TYPHOON	63
NAUTILUS EXPLORER	6	WAKATOBI DIVE RESORT	9/82
NORTHERN DIVER	22	WATERPROOF	107
O'THREE	2	WESTFIELD INSURANCE	102/103



1-year subscription + **FREE Diving Watch**

- * Take out a ONE-YEAR subscription to Britain's best-selling diving magazine for just £36.80 by Direct Debit (a saving of 30 per cent off the normal UK price)
- * You also receive an Apeks Professional Diving Watch (worth £82) ABSOLUTELY FREE!
- * Depth rated to 200 metres, the Apeks Professional Diving Watch has a stainless steel case and high-quality movement
- * Features include a uni-directional bezel, luminous face and hands, date window at 3 o'clock, and extra-long strap



* Offer includes p&p for the Diving Watch and for the 12 monthly magazines

Offer worth £134.80 – YOU PAY ONLY £36.80

1-YEAR SUBSCRIPTION + FREE DIVE TORCH - SEE PAGE 101

POST COUPON TO FREEPOST RTHU-JZAC-BJTR, DIVER Magazine, 8 Mount Mews, HAMPTON TW12 2SH

YES, please send: ☐ 12 issues of DIVER plus free Diving Watch for £36.80 (DIRECT DEBIT ONLY – UK ONLY)	Please fill in the whole form using a ball point pure FREEPOST RTHU-JZAC-BJTR, DIVER Maga Name and full postal address of your Bank or Building Society	zine, 8 Mount Mews, HAMPTON TW12 2SH
starting with the issue	Traine and rain postar dualess of your bank of banding society	Instructions to your Bank
YOUR DETAILS (BLOCK CAPITALS PLEASE)	To:The Manager Bank/Building Society	or Building Society to pay by Direct Debit DIRECT
Name	Address	Originator's Identification Number Debit
Address		684588
Postcode	Postcode	
Tel E-mail	Name(s) of Account Holder(s)	Instructions to your Bank or Building Society
DELIVERY ADDRESS (IF DIFFERENT FROM ABOVE) Name	name(s) of account notice(s)	Please pay Eaton Publications Direct Debits from the account detailed in this Instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may
Address	Bank/Building Society account number	remain with Eaton Publications and, if so, details will be passed to my Bank/Building Society.
Postcode		Signature(s)
Tel E-mail	Branch Sort Code	Date
DIRECT DEBIT PAYMENTS (for Diving Watch) ☐ I will pay £36.80 by Direct Debit. The full amount will be deducted in one lump sum and annually until notified to Eaton Publications and your Bank or Building Society in writing.	Reference Number (to be completed by Eaton Publications)	Banks and Building Societies may not accept Direct Debit Instructions from some types of account.

Direct Debit subscribers can cancel at any time and receive a full refund on any copies still due.

Signature

This Guarantee is offered by all banks and building societies that accept instructions to pay Direct Debits. If there are any changes to the amount, date or frequency of your Direct Debit Eaton Publications will notify you 10 working days in advance of your account being debit dor as otherwise agreed. If you request Eaton Publications to collect a payment, confirmation of the amount and dark will be given to you at the time of the request. If an error is made in the payment of your Direct Debit by Eaton Publications you whan knot building society you are entitled to a full and immediate refund of the amount paid from your bank or building society. If you receive a refund you are not entitled to, you must pay it back when Eaton Publications asks you to. You can cancel a Direct Debit at any time by simply contacting your bank or building society. Written confirmation may be required. Please also notify us.







No PFO was going to end my diving career

Many people live their lives unaware of having a 'hole in the heart'. JOHN WILLIAMS found out through diving – and took steps to ensure it wouldn't change his life

AM A BSAC ADVANCED DIVER. Over 30 years I have logged more than 1050 dives, mainly in British waters but also overseas.

As the 2015 diving season gets underway I thought it timely to recount my experience of dealing with a patent foramen ovale (PFO) and an atrial septal defect (ASD). I don't hold a medical qualification but I have gained a lot of personal experience on this subject – the hard way.

When I started diving in 1985, the practice was to use US Navy decompression tables that included, for example, a no-stop bottom time of 25 minutes at 30m with an ascent rate no faster than the small exhaled bubbles. I suffered no symptoms of decompression illness (DCI) under this provocative profile

In 1988, BSAC published its more cautious tables, which I used successfully for several years, again without any DCI symptoms. I then followed the trend and started using a dive computer on both air and nitrox.

The first indication that I might have a problem came while I was diving in Cuba. On a couple of occasions after long second no-decompression dives, I developed an itchy red rash on one or both shoulders, exactly where the BC shoulder-straps were located. It would appear about an hour after surfacing and disappear in about two hours.

I comforted myself with the thought that this was heat rash resulting from Cuba's high temperature and humidity. The dives never exceeded 30m, never incurred decompression, and always included a safety stop of at least three minutes at 5m.

However, once back in the UK, I suspected that these may have been skin bends and that there could be an underlying problem. I contacted Diving Diseases Research Centre (DDRC) at Plymouth and was recommended to have an echo-cardiogram to get my heart checked.

A PFO IS A SMALL HOLE in the heart's atrial septum. We all have one when we are in the womb, but it is sealed by a flap valve when we are born.

In a percentage of the population the hole does not fully seal. This leads to the foramen ovale, or oval window. If the seal is only partially formed, it is called an atrial septal defect (ASD).

On decompression, for instance when ascending on a dive, the PFO allows blood containing gas,

which is normally diverted through the lungs where the gas is filtered out and exhaled, to pass into the arterial circulation. Gas bubbles may then block or damage blood vessels and cause DCI symptoms.

DDRC referred me to the Shrewsbury & Telford Hospital to see a leading expert in diving medicine. I was injected with saline solution and connected to an echo-cardiogram so that bubbles in the saline crossing from the right side of my heart to the left could be seen.

Video showed a stream of bubbles passing through my heart when I carried out a Valsalva manoeuvre – a clear indication of a PFO.

I was gutted as I contemplated what this could mean. Options included hanging up my fins; continuing diving within a very restrictive regime with an ongoing risk of DCI, or the implanting of an



occlusion device into the PFO. In the simplest terms, two small umbrellas fitted with a fine mesh are inserted on either side of the hole, via a thin tube, directly into my heart via a vein in the groin.

The natural healing process seals the hole. If I decided on this demanding surgery I was recommended to have this procedure by the expert team at the Liverpool Cardiothoracic Centre.

I decided to go for it, because I really wanted to go on diving but also because I was advised that the PFO increased my risk of having a stroke. Small blood clots, normally routed into the lungs, may pass through the PFO and lodge in the brain.

Also, if successful, the irritating visual auras, a form of migraine from which I occasionally suffered, could also be reduced, because there appears to be link between PFOs and migraine with aura.

I was in hospital for two nights, and six weeks after the procedure had a further echo-cardiogram, which revealed that there was a small residual right-to-left "shunt" in my heart, though this was not considered significant. Again diving options were discussed – continued use of nitrox on conservative profiles with a long safety stop was the agreed way forward.

AFTER A SUCCESSFUL MEDICAL I resumed diving, but after about 70 dives and following a 30m dive off south Devon I had a serious problem.

The dive had been on a 32% nitrox mix with a safety stop but I developed a chest pain similar to indigestion, and went onto oxygen.

After about 20 minutes the pain ceased but I had pins and needles in my feet and legs. After eight DDRC chamber treatments I had regained all the feeling. The no-decompression profile I had followed had not been provocative, as my computer showed, implying that the remaining small ASD was the probable cause of the bend.

Back in Liverpool a second occlusion device was installed into the ASD, and a third echo-cardiogram showed that the procedure had been entirely successful. I was told that I was at no greater risk of developing decompression symptoms than a diver with an intact atrial septum.

My PFO was measured at 14mm diameter, the ASD at 6mm. Holes of 14mm are apparently unusual, but as about 25% of the population may have some form of PFO (albeit mostly small) there must be others with similar conditions to mine.

With what size of PFO or ASD is it safe to dive? I leave this question to the medical experts but from my experience I wouldn't risk it.

Since having the second procedure
I have dived more than 250 times, with no DCI symptoms. Also, the visual auras that I sometimes suffered have not recurred.

While I was in for the first operation, a young, fit PE teacher, a non-diver, was in for the same procedure. He had suffered a stroke; he collapsed at home and because he was young and fit it took some time for the medics to diagnose what was wrong.

I would strongly recommend anyone who believes they may have a problem to get it checked before diving again. Indications could include not only DCI but visual aura, with or without migraine headache.

Immense gratitude goes to my GP, the staff at DDRC, the Shrewsbury & Telford Hospital and the Cardiothoracic Centre at Liverpool for their skill, professionalism and support, without which my diving career would have ended some years ago.



Introducing Our 2015 Drysuit Line-Up



D7 PRO ISS

HI-END TRILAMINATE FRONT ZIP WITH INTEGRATED SILICONE SEALS

VERSATILITY AND PERFORMANCE

D9 BREATHABLE

LIGHT-WEIGHT BREATHABLE QUAD-LAM DRYSUIT WITH FRONT ZIPPER

IDEAL FOR THE TRAVELLING DIVER





UK Distributor www.cpspartnership.co.uk



Suunto introduces its next generation dive computer. The intuitive Suunto EON Steel combines advanced technology with customizable features and display to show clearly what you need. With heavy duty housing, a stainless steel bezel, and user updatable software, Suunto EON Steel will dive with you for years to come.

www.suunto.com



